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ESSAYS, MONOGRAPHS, AND CASES.

An Effort to shorten the Duration, and diminish the Pain, of the First Stage of Labor, with a Record of One Hundred and Forty-seven Cases. By B. FORDYCE BARKER, M.D., Obstetric Physician to Bellevue Hospital.

Modern obstetricians divide labor into three stages. The first stage is said to commence with the beginning of labor, and to end with the complete dilatation of the cervix uteri; the second stage ends with the expulsion of the child, and the third includes the delivery of the placenta. But there is a precursory period, during which the uterine neck is preparing for the first stage of labor. This period commences in some two weeks, and in others not more than five or six days, before labor may be said to actually begin. During this time the uterine tumor becomes sensibly lower, and this change is accompanied with a corresponding change in the symptoms. The respiration becomes free, the action of the diaphragm is less impeded, and the stomach is no longer compressed; while nausea and vomiting, if they have existed in the latter stages of pregnancy, now disappear. At the same time that the thoracic and epigastric symp-

tractility is, like all muscular power, exhausted by prolonged exercise, as we often see the labor commence with strong, vigorous, and frequently recurring pains, which, after some hours, become slow and feeble, and sometimes cease altogether for a while. For this reason, the duration of the first stage of labor may greatly influence the favorable progress and length of the second stage. It is usually said that the first stage may be prolonged without danger, and that the only inconveniences resulting are, the great fatigue caused particularly by the loss of sleep, and, in nervous women, considerable irritation, depression of spirits, and alarm; while the second stage cannot be prolonged beyond certain limits without greatly endangering the health of the patient, and oftentimes the life of the child.

The first part of this proposition is true, so far as the immediate results are concerned, but it may be quite the reverse from the exhaustion of the muscular contractility produced; thus inducing a feeble and inefficient action of the organ in the second stage of labor.

It is obvious that if the dilatation of the os externum could be accomplished by comparatively painless contractions, as is ordinarily the dilatation of the upper portion of the cervix uteri, a great point will be gained in mitigating "the pains and pangs of labor;" and where no cause of dystocia exists, there is a strong probability that the duration of the second stage would be decidedly decreased.

In 1854, at the close of one of my lectures, I was informed by one of the students that his father, a physician in Ohio, was in the habit of giving belladonna internally, as a preparation for labor. I very much regret that I have lost the name of the gentleman, although I have made repeated efforts to ascertain it. The hint given led to a series of experiments, the results of which will be seen in the table of 147 cases of labor, in which I have been able to test the effects of this plan. I have aimed to commence the treatment about two weeks before the end of gestation; but of course the data for calculation are so uncertain, that the length of time that the medicine was taken varied much from this period. The treatment has been tried with only a part, I may say a small part, of my obstetric patients, for many reasons. In many cases, I have first seen the patient when labor has begun, without having been previously engaged. In others, labor has come on within two or three days after the treatment has been commenced. These are not included in the table. Others, again, I have attended in former labors, and have not been called until the second stage of labor had commenced. Only those are included in the table where the plan has been to a satisfactory degree tested. I have found

a very great difference in patients as to their susceptibility to the influence of the agent, and also a great difference in the purity and strength of the article. One extract would seem to have double the potency of another, without any corresponding difference in the appearance, color, or odor.

I have aimed to commence always with a minimum dose, but in some cases, owing either to the idiosyncrasy of the patient, or the unusual strength of the article, I have been obliged to diminish the dose; but in most cases it has been gradually doubled, or even tripled. The test has been, the constitutional effects of the article exhibited in a slight degree; as, dryness of the throat, slight uneasiness or giddiness of the head, or dimness of the vision. I direct that any or all of these symptoms should be watched for, and if they appear, to slightly diminish the dose; that is, take it twice instead of thrice a day. In but one case have I had any really unpleasant effects produced. This patient had been poisoned in her childhood by eating the berries of the belladonna, and after taking the article for three days, its constitutional effects were suddenly developed, and excited great alarm on the part of her friends. The symptoms, however, disappeared in the course of twenty-four hours. Labor came on the second day after the disappearance of the symptoms, and was so rapid that I did not see the patient until it was completed. Her first labor (this was the second) was reported to have been thirty-six hours in duration.

In not one of the cases was the child still-born, and in none of them was there post partum hæmorrhage or retention of the placenta. In one, the function of lactation was entirely absent; and in two others, the mammary secretion did not appear until the fifth day. Where the patient was plethoric, of a full habit, rigid fibre and active circulation, I have combined the antimon. et potass. tart., as in the following formula:

R.—Belladon. ext., ... gr. viij.
Antimon. et potass. tart., . . . gr. iij.
Syr. aurantii, ... ℥ ij.
Tinc. aurantii, ...
Aquæ, ... na., ℥ j.

M. S. A tea-spoonful three times a day.

In all the cases, I have commenced with the extract of the belladonna, in one-quarter-grain doses. With some I have made use of the following formula:

R.—Tinc. cinchon. co., ... ℥ iij.
Syr., ... ℥ j.
Belladon. ext., ... gr. viij. M.

Where special indications have existed, I have combined the belladonna with a great variety of other articles. The test of a larger experience and of other careful observers is needed to determine whether this prophylactic plan is a real contribution to the progress of the obstetric art.

Table of One Hundred and Forty-seven Cases of Labor.

No. of Case.	No. of Pregnancy.	No. of Days Belladonna was taken.	Hours 1st Stage.	Hours 2d Stage.	Minutes 3d Stage	Presentation and Position.	Chloroform, No. of Hours.	Size and Weight of Child.	REMARKS.
1	1	8	5	7	20m.	v.l.o.i.an.	6 hs	b,10½ lb	
2	3	17	3	2	15	do	2¼	Boy	Patient very irritable and nervous before the chloroform was used.
3	1	12	6	5	20	v. r. o. i.	3	Girl	
4	1	14	11	9	20	do	8	B, 9 lbs	Occiput rotated backward to the sacrum. Forceps.
5	4	12	2	3	15	v. l. o. i.	none	B, 7 lbs	
6	1	9	5	5½	20	do	7	Boy	
7	3	15	4	1¼	15	do	1	Boy	
8	1	12	5	5	25	do	3¼	Girl	
9	1	12	6	7	15	do	5	Girl	
10	1	9	6	4	15	f. r. m. i.	1	Boy	Delivered by forceps, as the sounds of fœtal heart were becoming very feeble.
11	1	12	3	7	20	v. r. o. i.	3½	Girl	
12	1	8	11	5	20	v. l. o. i.	5	Girl	
13	8	15	unk.	1	5	unknown	..	Boy	Delivery completed before my arrival. Former labors generally 24 hours.
14	3	15	3	5	20	v. l. o. i.	3	Girl	
15	1	11	4	6	20	do	5	Girl	
16	1	9	10	6	15	do	6	Girl	
17	2	13	3	2	20	do	..	Boy	
18	1	16	8	5	20	do	4	Boy	
19	1	8	6	2	15	do	2	B, 6 lbs	
20	3	14	unk.	1	10	rt. shoul.	1	Boy	Delivered by turning. In her two former labors the child was lost.
21	1	10	4	4	25	v. l. o. i.	4	Girl	
22	1	14	5	3	20	do	4	Girl	
23	1	11	6	3	25	v. r. o. i.	2	Girl	
24	1	14	3	4	15	v. l. o. i.	2	Boy	
25	2	13	1	2	15	do	....	Boy	
26	1	15	5¼	4	20	do	4	Girl	
27	4	17	2	2½	15	v. r. o. i.	2	Girl	
28	2	11	4	4½	15	v. l. o. i.	4	Girl	
29	2	13	2	6	15	do	5	Boy	
30	1	10	11	3	15	do	½	Boy	
31	1	8	11	5	15	do	3	Boy	
32	5	14	1	3	15	do	....	Girl	
33	2	15	1	5	15	br'h,l. t. i	1	Girl	
34	1	8	8	3	15	v. l. o. i.	5	Girl	
35	1	12	4	4	15	do	2	Girl	

No. of Case.	No. of Pregnancy.	No. of Days Belladonna was taken	Hours 1st Stage.	Hours 2d Stage.	Minutes 3d Stage	Presentation and Position.	Chloroform, No. of Hours.	Size and Weight of Child.	REMARKS.
36	3	16	..	1	15m.	....	...	Boy	Delivery completed before my arrival.
37	5	14	2	4	15	v. l. o. i.	3	Girl	
38	7	13	1½	3	20	v. r. o. i.	1	Boy	
39	1	12	8	5	20	v. l. o. i.	4	Boy	
40	3	11	8	2	20	do	1	G.11lb.	
41	1	13	5	4	20	do	5	Boy	
42	5	13	2	1½	15	do	....	Boy	
43	1	10	5	4	15	do	4	Girl	
44	1	9	..	1½	20	do	1½	Boy	Convulsions. Found cervix dilated. Delivered by forceps. Convulsions ceased after delivery. Urine albuminous.
45	1	14	3	3	20	v. r. o. i.	2	Girl	
46	1	13	3	13	20	do	3	Girl	Delivered by turning. Slight contraction of antero-posterior diameter of superior strait.
47	4	15	2	3	5	v. l. o. i.	½	Boy	
48	3	11	4	1	10	do	....	Girl	
49	1	12	4	5	20	do	4	Girl	
50	1	13	5	2	10	do	½	Girl	
51	2	9	5	2	20	v. r. o. i.	1	Boy	
52	1	12	3	5	15	do	4	Girl	
53	4	16	..	2	15	v. l. o. i.	1	Boy	Where the duration of the 1st stage is not given, it is finished before I have seen the patient.
54	1	12	1	3	20	do	1½	Girl	
55	1	11	4	6	20	do	5	Girl	
56	9	11	..	2	20	do	....	Girl	
57	1	7	7	3	20	do	2	Boy	
58	4	14	2	1½	20	v. r. o. i.	½	Girl	
59	3	12	..	3	15	v. l. o. i.	1	Boy	
60	1	10	4	2	20	do	1	Boy	
61	1	10	4	6	25	do	4	Girl	
62	4	13	6	1	20	do	....	Girl	
63	1	9	5	4	5	do	2	Boy	
64	2	12	3	1	15	do	2	Girl	
65	1	15	6	6	20	v. r. o. i.	4	Girl	
66	3	8	2	1½	5	v. l. o. i.	...	B, 9 lbs	
67	7	16	3	1	20	do	½	Boy	
68	1	12	3	4	15	do	2	Boy	
69	3	13	2	5	25	do	2	Girl	
70	1	9	6	3	15	do	1	Girl	
71	2	15	..	4	5	v. r. o. i.	...	Boy	
72	1	12	4	2	15	do	1	Boy	
73	5	14	1	3	15	v. l. o. i.	½	Boy	
74	1	11	4	2	20	do	1	Girl	
75	2	11	5	3	5	do	3	Girl	
76	1	13	18	3	20	do	7	Boy	Patient very irritable; albuminous urine, but no convulsions.
77	1	8	16	4	20	v. r. o. i.	12	Boy	Convulsions. Patient very full habit. V. S. oz. xxv., then chloroform, after which no more convulsions.

No. of Case.	No. of Pregnancy.	No. of Days Belladonna was taken.	Hours 1st Stage.	Hours 2d Stage.	Minutes 3d Stage.	Presentation and Position.	Chloroform, No. of Hours.	Size and Weight of Child.	REMARKS.
78	3	12	1	3	15m.	v. l. o. i.	1	Boy	
79	1	10	6	4	15	do	1	Girl	
80	2	9	6	3	20	do	1	Girl	
81	3	12	..	2	15	do	....	Boy	
82	1	9	3	3	20	do	2	Girl	
83	2	13	5	4	15	do	1	Girl	
84	1	15	7	3	20	do	2	Boy	
85	3	12	2	3	15	do	....	Girl	
86	5	7	6	1	20	v. r. o. i.	2	Girl	
87	1	13	8	5	5	do	4	Boy	
88	3	9	..	2	15	v. l. o. i.	....	Boy	
89	7	13	3	4	5	do, rt. ha.	2	Boy	
90	2	10	4	4	25	v. l. o. i.	1	Boy	
91	1	9	12	6	15	do	7	Boy	
92	3	11	2	5	15	do	2	Girl	
93	3	13	7	1	15	b'ch, l.s.i.	....	Girl	
94	2	11	7	3	15	v. l. o. i.	3	Girl	
95	3	13	2	5	20	do	5	Boy	
96	5	12	4	9	20	v. r. o. i.	3	B.12 lb	Forceps.
97	2	9	2	5	15	v. l. o. i.	1	Girl	
98	1	13	7	3	25	do	4	Boy	
99	2	15	3	4	5	do	1	Boy	
100	3	18	..	..	30	....	....	Girl	Labor complete in 30 minutes from first pain.
101	2	9	..	7	5	v. l. o. i.	3	Girl	
102	1	12	6	4	20	do	2	Boy	
103	3	10	1½	4	15	do	1	Boy	
104	2	13	3	7	20	v. r. o. i.	6	Boy	
105	5	18	1	4	5	v. l. o. i.	1½	Girl	
106	1	8	11	3	25	do	8	Girl	
107	1	15	2	9	10	do	3	Boy	
108	2	10	13	1	25	do	....	Boy	
109	7	13	..	5	10	do	2	Boy	
110	3	11	1	4	20	do	1	Girl	
111	1	16	8	3	20	v. r. o. i.	5	Boy	
112	13	12	..	12	15	v. l. o. i.	2	Boy	Forceps. Great anterior obliquity of uterus.
113	3	9	3	1	25	do	....	Girl	
114	1	15	9	3	10	do	2½	Girl	
115	2	13	4	1	10	do	½	Boy	
116	1	14	14	3	20	do	3	Boy	
117	1	10	4	6	10	do	4	Girl	
118	3	11	3	4	25	do	1	Girl	
119	4	12	1	4	20	v. r. o. i.	2	Boy	
120	1	9	10	7	15	v. l. o. i.	3	Boy	
121	3	14	3	2½	20	do	1	Girl	
122	2	10	10	2	5	do	1	Girl	
123	2	11	4	2	10	do	1	Boy	
124	3	12	6	3	20	do	2	Boy	
125	2	13	7	4	15	do	3	Girl	
126	1	14	14	6	25	do	8	Girl	
127	3	10	4	2½	10	do	2	Girl	Former labors over 24 hours.
128	2	13	7	4	15	do	1	Boy	
129	1	9	4	4	25	v. r. o. i.	3	Boy	

No. of Case.	No. of Pregnancy.	No. of Days Belladonna was taken.	Hours 1st Stage.	Hours 2d Stage.	Minutes 3d Stage.	Presentation and Position.	Chloroform, No. of Hours.	Size and Weight of Child.	REMARKS.
130	3	12	..	2	5m.	v. l. o. i.	....	Girl	
131	2	14	1	3	20	do	1	Girl	
132	2	11	3	5	25	do	5	Boy	
133	1	14	6	2	15	v. r. o. i.	1½	Boy	
134	5	13	..	1½	5	v. l. o. i.	....	Boy	
135	3	9	..	..	..	....	....	Boy	Labor completed in 45 minutes after the first pain.
136	1	12	3	4	25	v. l. o. i.	2	Girl	
137	3	15	6	1	5	do	1	Girl	
138	1	12	2	5	20	face, r.m.i	....	Girl	
139	2	10	6	6	5	v. l. o. i.	4		Former labors tedious.
140	3	13	4	1	15	do	½		
141	1	16	4	2	5	do	2		
142	1	9	9	4	20	v. r. o. i.	4	Girl	
143	1	14	3	3	20	v. l. o. i.	1	Girl	
144	3	13	5	3	10	do	....	Girl	
145	4	12	2	3	5	do	2	Boy	Former labors tedious.
146	2	15	5	7	25	v. r. o. i.	5	Boy	
147	1	12	2	1	5	v. l. o. i.	1	Boy	

Frozen Parts—Frost-Bites. By R. NELSON, M.D., New York.

[Read before the N. Y. Medico-Chirurgical College, Dec. 27, 1860.]

This paper is not called for in this region of New York, where the cold is seldom sufficient to freeze people; but in the north and northwest it may be useful, as giving a rational statement of what ought and ought not to be done in cases of frost-bites. It was written last year, but not then published, owing to causes unnecessary to be mentioned. It was suggested by the following article, which appeared in the *N. Y. Herald* of December 30th, 1859, in which it is said that the weather was so cold at the time of the great fire, December 16th, 1835, that "*barrels of brandy and other spirits were kept beside the engines and emptied into the boxes to keep them from freezing. The firemen were compelled to put brandy into their boots to keep* [their feet] *them from freezing.*"

No doubt that the above statement is correct as to the use made of the spirits, but there the accuracy ends. Much knowledge, also error, is imbibed by the masses from newspapers. A statement, in *print*, is so potent, that it is believed and propagated as a truth, while the same statement made in *words* would be disregarded. On this account I notice the above extract to refute, not the fact, but the con-

clusions and the dangers likely to ensue from its application, especially since a large portion of people believe that, since spirits do not freeze, anything put into spirits, like it, will not freeze; but this is false.

Experiment.—Fill a flask with spirit—say whiskey, and place it in the air, the thermometer at 10 or 20° below 0, Fah.; next, fill two phials with water, well stoppered. Hang one phial in the air and one in the whiskey—this will happen: the water in both phials will freeze; the one in the air not so soon as the one in the spirit, because the spirit being at the same temperature as the atmosphere, and a denser body, will more quickly than the air absorb the caloric from the phial suspended in it, than the atmosphere will from the phial in it. The water in the phials will remain for a time transparent, because liquid, and when cooled down below freezing will suddenly grow milky-white, and in *an instant* after, the phials breaking, will become solid ice; because, up to the moment of freezing, the phials resisted that expansion without which the water could not solidify into ice. These physical facts are so evident, that it would be a waste of time to dwell longer on them. The masses are ignorant of these physical facts, and are confirmed in their error by such statements as the one above mentioned, and ought to be corrected. To show that this error has had at least one application within my own knowledge, I shall now mention one case.

Case 1.—Two gentlemen interested in land, went into the forest with a surveyor, to mark out a boundary. The day was moderately cold—about zero. This day's labor over, and having a bottle of brandy left, they poured a portion into their boots, under the idea of securing their feet from cold. They had an hour to *walk* before reaching a house, and this exercise preserved them; for had they ridden, undoubtedly they would have lost their feet.

Case 2.—A grocer had a number of puncheons of rum piled up in his yard in a very cold climate. He sent two of his clerks to tap one of them, which was done; but the hole having been bored too large for the cock they had with them, one thrust his thumb into the hole to stop it while the other run into the house for a suitable cock. In a minute, or a little over, he returned, and his companion withdrawing his thumb, found it white, senseless—frozen. The bone of the first and part of the second phalanx was frozen, and ultimately, was lost; for a frozen bone *never* recovers.

I might cite many more cases in illustration of the danger to be feared from spirits cooled to a *low* temperature, but which, however interesting, would extend this paper to too great a length.

What takes place when a Part freezes.—This ought to be understood before attempting to remedy the evil; and let us take the case of an ear. The cold air at first excites a biting pain, increased redness from afflux of blood invited by the pain; a while longer the pain diminishes, and the redness lessens—nearly disappears; all at once a sharp sting will ring, as it were, through the part, and as suddenly all pain will cease—it is frozen, is quite white, bloodless; innervation, circulation, and life have ceased in the part. Should the exposure continue, the freezing will extend, and the pain at the frozen limit will recede further and deeper. It is different for covered parts—as the fingers and toes; here the pain is less acute; there is rarely any preceding redness, nor is the moment of freezing announced by the sudden sting felt when it is an exposed part. When long continued, not only the soft parts, but also the bone, become involved. All these freezings necessarily proceed from without inwardly, and the thawing or recovery of the part ought to follow the reverse order, else destruction will ensue. The particles first frozen must be the last thawed; for, should the surface be thawed first, a frozen stratum will remain between it and the deep living structure, cutting off all communication of innervation, circulation, and life from below, leaving this imprudently thawed part isolated, and subject to the laws of dead matter already interfered with by the chemical and vesicular alteration which freezing induces. Therefore, the thawing must take place slowly from *within*, each particle, as it thaws, receiving such innervation as it is susceptible of—such amount of blood as the injured vessels will admit, particle by particle—and a dose of life from the nearest living atoms. This much said, we are now prepared for the treatment.

Treatment of Frost-Bites—Application of Snow.—A popular error exists—almost universal—that a frozen part is to be restored by rubbing it with snow. By this *rubbing* and *indiscriminate choice of snow*, two great errors are committed, each of which adds to the first injury.

First—Rubbing.—Its advocates may possibly say rubbing will set the blood in motion, and help to generate heat to thaw the part—false. A frozen part is a solidified one, and the blood usually there is now absent; but even if present, it could not be made to circulate until thawed; therefore, this first act is worse than useless, since it cannot effect the object intended. The juices that give pliancy and compressibility are frozen into minute crystals, more or less approximated. In this state, bending or compressing (the effect of rubbing) will produce innumerable small fractures in the tissue, which, on becoming thawed, will leave as many lesions, added to the one created

by the simple congelation; an accident sufficiently severe in itself. The friction cannot give fluidity to that which is solid, as is a frozen part, and by its alternate pressing and kneading, will produce mechanical interstitial damages.

The *second* error is the *indiscriminate quality of the snow*, as regards its temperature, and is a more serious one than that of friction. Frost-bites can scarcely happen at a less temperature than zero, or 30° to 25° below the freezing point, and snow at such a time must be at an equally low temperature. If snow so cold be applied, it cannot contribute caloric to thaw the frozen part, but must abstract caloric from it, and tend to either keep it frozen or freeze it deeper than it was before the application.

Case 3.—Two gentlemen driving in a very cold day, one of them froze the tip of his thumb; his companion told him to rub it with snow. He drew his thumb out of the mitten, and with the other hand (a mitten on) picked up the cold snow from the roadside, which he vigorously rubbed on his thumb, but it would not thaw! with this infallible remedy. He continued to repeat the dose as they rode along, and the thumb continued to freeze more and more; at last an acquaintance met them, and apprised them of the error they were committing; but too late, for already had the first and part of the second phalanx frozen, bones and all, to the ultimate inevitable loss of the limb. The day was cold, below zero, and the temperature of the top snow the same, of course. Since the tip of the thumb froze through the mitten, it would have taken little reflection to know that snow as cold as the air that froze through the mitten, when immediately applied would surely freeze the part more. But who is there that reflects or reasons on a dogma? It is accepted as a matter of course, and the more readily when it is incomprehensible.

Another Case, 4, *a contrast to the foregoing*.—Two gentlemen riding side-by-side in extremely cold weather, well muffled up. One of them had his cheek slightly exposed to a blast that blew under the peak of his cap. He felt the sudden sting that precedes, or rather accompanies freezing, and well knew what had happened, and what to do, for he was a reflecting man. The driver, looking round, apprised him that his cheek was nipped—never mind, drive on, was his reply. All he did was to crouch his face a little lower into his shawl, for it was too cold to raise his arm and hand from the tucking in. He trusted to the shelter he now got, and the rising heat from his body, to *slowly* restore the part. The road took a turn and the wind ceased to scathe the frozen cheek, which now *gradually* thawed by

the ascending heat from his body. In a little time the cheek began to smart; to remedy this he contrived to expose his cheek to a little more air, and so cooled off the rising reaction and too rapid thawing. When he reached the halting-place an hour after all was well, only a little tender, to the surprise of his companion and the driver, who could not conceive how a frost-bite could be recovered from without having recourse to the inevitable rubbing and snow.

It is easy, now, to perceive how a frozen part is to be thawed. It must be borne in mind that the particles last frozen are those which must be first permitted to recover, and prevent the next outward layer from doing so until the inner one has, which can only be done by retarding the thaw of the outside. How is this to be done?

By applying such a degree of cold as will not increase the freezing, at the same time prevent it from thawing until it is reached by the natural thawing from within outwardly. This object is easily attained; for where frost-bites happen there is at hand either snow, ice, or frozen earth. When the weather is very cold the snow or ice will be nearly of the same low temperature—10°, 20°, 30° below zero, Fah. Such snow is too cold; it will freeze the part more than it was before its application. But it is easy to get warmer, or less cold snow—snow of a suitable temperature—such as will not additionally freeze. This suitable temperature is barely the freezing point, 32° above zero of Fahrenheit. It is easy to raise the temperature of snow, however cold, to this degree, by simply putting a few handfuls into a basin of water, which will instantly bring it to the temperature needed. When there is no snow or ice, frozen earth may be substituted. The water will be brought to 32°, the exact point to permit slow thawing from *within*, as already mentioned. If it be the fingers or toes that are attacked, immerse them in a basin full of this slushy snow, ice, or mud water; should it be an ear, or nose, or cheek, apply this water by means of a napkin, frequently dipping it so as to keep it at this barely freezing (or thawing) temperature, until color and softness return to the part. After that, less cold water may be used, so as to keep down the inflammatory congestion that is likely to follow. While this slow process of thawing is being effected, avoid that rubbing and kneading, the error of which has already been noticed. When the part has thawed, and is not dead, the epidermis will often blister like a scald. Prick these blebs, as they form, and dress with *basilicon* rather than with cerates, and exclude the air and light, since these increase the inflammatory state.

When the congelation has penetrated deep, the part will slough,

however judiciously it may have been thawed. Should the freezing have reached a bone, as a phalanx, even slightly, it will never recover, (as in case 2.)

Case 5.—A young man, a carpenter, unacquainted with the *feeling* of intense cold, this being his first winter in a severe climate, left his work to go to his dinner at a short distance, carrying in one bare hand a jack-plane, in the other a hand-saw, both dense wood and good conductors. On entering his house he found the tips of his fingers nipped and white. His wife applied the popular remedy, which this day was very cold, dry snow. She *rubbed* his fingers assiduously, until the white and the frost extended to his knuckles, and desisted only when her own began to be nipped. Two days after he called on me; his fingers now looked like as many black sticks, and becoming dry. In a month more they separated from the palms, leaving him fingerless of both hands. The poor young wife, in giving an account of the affair, dwelt emphatically on her diligence in rubbing the snow, saying that the more she rubbed the more his fingers froze. Had this popular error not existed, or had she known the difference between *cold* and *warm* snow, she would have used her own common sense, and saved, instead of destroyed, her husband's fingers.

Case 6.—A man 50 years of age froze all his toes. They were thawed *popularitер;* but in two days the soft parts became black, then dry. In six or eight weeks they began to fall off at the metatarsi; also the heads of these bones. After several months of suffering a thin shiny cicatrix covered the stumps, but the pain continued, because the remaining bones were struggling with slow disorganization. An inch long of each metatarsus was amputated; this was followed by instant cessation from pain, followed by a good cure.

When the whole frozen portion of bone does not separate, or when a bone is only slightly touched, the investing tissues may recover, but most likely will remain swollen by congestion and a languid inflammation; while the bone beneath will undergo a great and slow change, losing its hardness, the lime gradually wasting away, leaving it with a soft, semi-cartilaginous, yellowish look, and will never recover.

Case 7.—A party of infantry was sent on a march of two days in the winter of 1813. On the second day they returned to quarters, some of them on two or three sleighs, so exposed that there were several frozen toes. One man, after the great-toe thawed, the epidermis blistered, and the nail came off; new epidermis formed, also a sickly nail, from the edges of which oozed a fœtid, watery fluid. The flesh remained swollen, purple red, and a continuous aching persisted

for nearly a year, relieved by amputation only. The bone was softened, and diaphanous in several places, like a bone macerated in acid; in other parts it was dead and carious. Another man had to lose two of his toes thirteen months after the accident; in his case the phalanges were similarly affected.

Case 8.—A man about 35 years of age, looking haggard from continued aching pain in the great-toe. He had applied various medicaments without benefit, and taken the advice of several practitioners, whom he thought did not understand the case. He called on me in August, and at the first glimpse of the toe, being familiar with such cases, I told him, to his surprise, that his toe had been frosted. At first he could not credit my statement: he had never been frost-bitten. But on reflection he remembered he had been out a couple of days in the snow in the winter-time on the Sierra Nevada, and that the pain dated from that time. No doubt the toe had thawed in his marchings, and when he came to encampment the frost-bite was not noticed as such at the time. The toe was removed, with a portion of the metatarsus; the phalanges were softened in some places to a thick or very consistent jelly, caries in other portions, no pus anywhere. The soft parts were similar to cases 7 and 8.

Great Chilling from Falling into Winter Water.—Not unfrequently, it happens in traveling on the ice that the horse and sleigh break through a weak or lately frozen part. As regards the horse, when rescued, he quickly *shakes* off the excess of water, and in five or ten minutes' smart driving, he begins to steam, and is warm enough to escape injury. The same for man, since there is neither time, place, nor means to change wet for dry clothing; and could this be done, it would prove injurious by the time consumed and the exposure. All that need be done is to make a quick squeeze or rub-down to press the excess of water out of his clothes; that done, like the horse, set to running as briskly as he can, but not ride. This exercise will be difficult for a few steps at first, but will soon succeed. If the weather is cold, his outward clothing will soon stiffen and freeze, and protect that which is under from further cooling by the air, while that next his person will warm from the heat of his body, generated by the exercise. If he reach a house in half an hour he will be safer than if he reached one in five minutes; for, when a person so immersed is immediately changed in a house, he is heated almost in vain from *without*—he will, in this case, continue chilly for several days after on the least exposure, even in a house; but if

warmed from within outwardly, by exercise, he may then be changed, and escape future accidents, congestions, &c.

Case 9.—Two little boys playing on the ice of a pond, broke through; the accident was seen, and they were soon rescued. One boy, the richer one, was carried into his father's house near by, shivering, trembling, blue mottled, quickly stripped and plunged into the bedroom warm bath. This boy felt cold for several days after, shivering when the door was opened, though in a warm house. The poor boy was taken charge of by a laboring man who ran to the rescue, took the little fellow by the wrist, dragging and running him along a considerable distance, to his father's house. On his withdrawal from the pond, the man quickly rubbed him down and the water out of his clothes. By the time he reached his house, his outward clothing began to freeze, but the boy had already through the exercise recovered from the chill; his clothes were now changed for dry, and he experienced no subsequent tenderness from cold as the other boy did. In these cases it might be beneficial to take a *little* alcoholic liquor once; but I am not certain that it would prove as beneficial as some people suppose.

Freezing to death—the whole person.—I have personal knowledge of many instances of persons being frozen to death. It is astonishing in how short a time a man will freeze to death—in an hour, even in less time. I shall mention a few cases only out of many.

What physiologically takes place when a man freezes to death, is nowhere accurately described that I know of. It is commonly stated that there is a great tendency to sleep, which must be resisted, else death will follow, as if sleep *of itself* was the dangerous thing. No doubt sleep, or an exhaustion resembling sleep, overtakes a person chilled through, and should he give way to repose, and not carry on that exercise which generates caloric, would cool more and more down unto death, and then freeze. A man frozen to death cannot describe what his feelings were; but there are many persons to be met with in rigorous climates who have been on the brink of perishing in this way, and from these, by proper inquiries and my personal experience, the facts are easily ascertained.

What does take place is—the person is generally fatigued and hungry; commences to cool down in the limbs and surface first; the blood returning thence, diminishes the temperature of the interior blood with which it mixes, pulse after pulse.

Proof.—Thirty years since, when it was the fashion to bleed for accidents, the blood from a cold arm and hand escaping from the basilic

vein might be found at 50° or less. Who has not often experienced, when riding in a cold day, the face very cold, the parotid fluid trickling in cold gushes over his second superior molar tooth? The external blood, then, is much colder than natural. This constantly returning cold blood tends to reduce the temperature of the whole mass, cooling the interior. The pulse diminishes in volume, becomes thready, almost ceases; listlessness like sleep comes on, insensibility follows, breathing ceases—death. Then it is that the body freezes in a short time, for the interior as well as the exterior require but a few degrees more reduction to become solidified. These facts are of frequent occurrence in cold climates, and escape notice by the ignorant mass; but intelligent and reasoning persons perceive them, and know them well.

Case 10.—A farmer about 50 years of age left home early in the morning with hay to be sold in the market, and did not sell his load until late in the afternoon of a cold day, about 10° below zero. All day he eat nothing, took no exercise to keep himself warm. He gradually cooled down, and of course, his clothing. He got into his sleigh, sat down in the bottom, with his back to his horse, a common practice, and followed in a long line of returning market sleighs on his way home. His horse being under no control, lagged slowly along, arresting the progress of those behind; this induced one of the hindmost travelers to run forward to whip up that horse, when he found the sitting man dead, stiff, frozen. This had occurred in less than an hour after starting.

Case 11.—A man about 56 years of age was seen to leave a poor house about 9 o'clock in the evening. He sat down in his sleigh and gave his horse, a poor, sorry one, his own way. The night was very cold—20° below zero. At that time I passed him on professional business a few miles into the country. On my return, my driver called to me, saying, there is the old white horse we passed, outside of the road in the hollow, (where the wind had swept the snow away near a house.) We stopped, found the poor man sitting, dead, his arms and legs frozen stiff. All this passed in one hour's time. I could relate many more such occurrences, and more interesting in the circumstances, but the description of which would be too lengthy for this article.

I hope this paper will tend to correct the erroneous belief in RUBBING with COLD SNOW a frost-bitten part; and induce some people to reflect on the *reason why* they do a thing, and not accept a doctrine because it is incomprehensible, and who believe it because it is marvelous—"The hair of the dog is good for its bite."

I have written this imperfect sketch because I am not aware of any surgical book that treats of these accidents. There is a *sensation* notice on frost by Baron Larrey, in his account of the great retreat from Moscow. He there deliberately states that the *first part* of those unfortunate fugitives that froze was the eyes! This absurdity I should not notice were it not from the quarter it comes, and having heard people repeat it, and believe it, because it is in PRINT, and is marvelous. The Baron neglected in his romance to mention how these men managed to keep on the march with frozen eyes. I doubt much whether he once got out of his flying sleigh, well wrapped in robes and furs, in his hurry to escape from the white bears, to examine and prescribe for these frozen eyes. But many people take as true all that is said by this hero of broad-sword and ret-hot-iron surgery, who has slain more men than he has saved; remorselessly tortured with fire more sufferers than he has assuaged; and by his example and great name led blind followers to imitate and repeat his cruelty and inhumanity. I knew him!

A few Thoughts on the Importance of Prophylactic Treatment in the Prevention of the Decay of Human Teeth. By ABR. ROBERTSON, D.D.S., M.D., Wheeling, Va.

Perfect teeth are so important to the life, health, comfort, and beauty of the human organization, that it cannot escape the observation of any one, whether professional man or layman. So fully is this fact recognized, that within a few years past, a host of several thousand men in this country alone, have risen up and professedly devoted themselves to the care, preservation, restoration, and artificial supply of these important organs. And they sustain three colleges and two or three times that number of journals devoted to the instruction of men, and of disseminating knowledge in this art, which they claim to be a branch of the "healing art."

Hitherto dentists have almost exclusively devoted their efforts and attention to arresting the decay in teeth, where it has already commenced, by filling and other operations, and of supplying the places of those already lost by artificial substitutes. But those who have observed most, and who have considered and studied the subject most carefully, are fast becoming convinced that such treatment is not sufficient; that operations on the teeth alone cannot fulfill the desired object. Operations cannot preserve the teeth in their original integrity, beauty and usefulness.

True, they can do much to preserve, and retain and restore to usefulness, teeth that have been partially, and even to a very great extent, destroyed by decay. Anything that has been repaired is not a perfect thing. Teeth that have been filled, and especially that have been filed, are always more or less defaced. Therefore, for the perfect object desired, preventive rather than reparative treatment is required.

But as dentists usually do not, and ought not, pretend to practice general medicine, and therefore have not the opportunity to apply the necessary prophylactic treatment; and as physicians do not, and from want of time and other circumstances generally cannot, and ought not to practice dentistry, a mutual obligation to the community, and to each other, rests on both physicians and dentists in this regard.

Physicians ought to be better prepared (and here I wish to disclaim all intention of invidiousness or reflection upon the medical profession; but I have heard some very eminent medical gentlemen say, with great complacency, "I know nothing about the diseases of the teeth,") to determine what teeth are capable of being preserved by dental operations; and they ought, too, when they observe the teeth of their patients wanting such operations, to recommend them to some good dentist, in whose integrity, judgment, and skill they have confidence. They should be prepared, too, to judge whether a dentist has the requisite qualifications to entitle him to such confidence. Promptness in giving, and urging such advice, if need be, is also important, for the success of such operations depends much on their being performed in time. And it is especially important that physicians, and more particularly country physicians, who are obliged to extract teeth, should be so qualified as to know when a tooth ought to be extracted and when not; for, for want of such knowledge, many useful and perfectly sound teeth have been extracted, sacrificed, because the patient wished it done, under the false impression that the tooth offended, when the pain, or at least the cause of the pain, was in some other tooth or part.

Dentists should also have much more knowledge of the general principles of medicine and surgery than many—most of them—possess; that they may know what cases require general as well as special treatment; and when general treatment is necessary, recommend their patients to the care of their family physician, or other proper medical advisers.

Preservation is the province and duty of the physician; *restoration* that of the dentist. But how shall physicians prevent the decay and subsequent loss of the teeth of their patients? As already intimated,

by prophylactics. When and how shall these be applied? Doubtless it may be done in many ways and at many times, but my present purpose is simply to call attention to one or two particulars, which seem to me to be pre-eminently important and plain, and which are of almost universal application. And here I will premise by saying that if the physician is called to a patient suffering from any disease, and has so treated him as to save his life, to restore his general health, to relieve him of his present suffering, he may have—he has—done a great good; but if he have, by any neglect or oversight, left him in such a state as in after life to be annoyed by pains and sufferings that might have been avoided, he has not done all the good he might have done, or that it was his duty to do.

It is almost a universal impression among mankind (at least in this country) that medicines injure the teeth—that they cause their decay.

Dentists almost daily hear remarks like this, and from all classes of people: "My teeth were perfectly sound until I was sick, and then I took so much medicine that it ruined them." A belief so universal as this never originates without some foundation, but still it is by no means certain that the conclusions are either correct or philosophical, and in the matter now under consideration, they are almost always wrong. Medicines but rarely injure the teeth. But few medicines, under any circumstances, can injure them. But that the teeth often decay more during and after sickness than before; that they often commence to show signs of decay, and even to give their possessors trouble immediately after a spell of sickness, is most unquestionably true, and for the plainest reason.

The secretions of the mouth in their normal state are alkaline, the buccal mucus being slightly acid, while the secretions of the glands of the mouth—the saliva proper—which is by far the most abundant secretion, is alkaline. Decay of the teeth is caused by agents acting upon them chemically.

Most, if not all diseases, more or less change the character of all the secretions. The secretions of the mouth are changed from an alkaline to an acid reaction by many diseases, as gout, rheumatism, fevers, cachexias, &c., and especially by inflammation of the stomach and alimentary canal, and indigestion. This effect is sometimes produced by suppressing the glandular secretions, and thus letting the acid mucus predominate; but more commonly by changing these secretions from alkaline to acid. While this altered state of the secretions continues, the teeth are constantly exposed to a bath, weaker or stronger, of acid, the only agent that is capable of injuring

them, that is ever likely to come in contact with them while in the mouth. This acts upon them chemically and constantly; and this I am satisfied--not only from the general belief that medicines injure the teeth, (though from what has already been said it is clear that proper medicines properly administered, that is, so administered as to restore these altered secretions, protect instead of injuring these organs,) induced by the observation that the teeth so generally fall into decay after the occasion for taking medicines—after "a spell of sickness"—but from many years' experience and observation in the cure and treatment of the teeth—is *the great* cause of their decay. True the continued use of acids, and especially of the mineral acids given as medicines, and also the topical use of such salts as have less affinity for their acid bases than has the lime of the teeth, sometimes effect sad ravages in these organs.

From the foregoing remarks it seems to me plain what course should be pursued; what is the only course to preserve the teeth of the community in their original integrity; or, at least, the course that will do much, very much, towards securing that most to be desired result.

First, that whenever a patient comes under the treatment or care of a physician, he should not only seek to restore health by restoring the secretions to their normal condition; but that he should carefully observe and satisfy himself by suitable tests, of which litmus paper is perhaps the most convenient, whether the secretions of the mouth are acid; and if so, take care to protect the teeth and other parts from its injurious effects while that condition lasts, by prescribing the frequent use of such antacid, or stimulating gargles, or washes, as shall most effectually counteract or prevent its action on the teeth, as well as to direct that they be kept as free as possible from all accumulations as might, by neglect, ferment and become acid in the mouth.

And second, when acids, or salts whose acids have stronger affinities for lime than for their own constituents, are exhibited, by directing that they be taken through tubes so as to prevent their contact with the teeth, or by immediately following their exhibition by some antacid wash, as solution of the carb. sodæ. Both might be but a prudent precaution.

If this course were generally adopted by physicians, and more especially if the community generally were instructed in the importance of such precautions, I am well assured that we should cease to hear such sad complaints of the bad effects of medicines on the teeth; and that a vast amount of expense, discomfort, pain and deformity would be avoided.

Hernia and its Treatment by Trusses. By J. W. RIGGS, M.D., New York.

Whatever may be the final verdict of the profession as regards the various *surgical operations* which have been practiced for the radical cure of hernia, it is sufficiently obvious that the *Truss* must ever maintain an important rank among the remedial agents employed in the treatment of the disease. It is believed, moreover, that the day will come when the timely application of a suitable Truss, and the necessary attention of a competent surgeon, will be found to supersede all operations for its relief, except in very rare instances of strangulation.

If, then, the Truss is to be our chief dependence, it is eminently proper to inquire as to its fitness for so important a purpose. Not only proper is it to discuss this subject, but there is in every community an inappreciable interest which demands of the profession, as the conservators of the public health, a thorough investigation of every agency which may be made available for relief from this distressing infirmity.

Not a town, scarce a hamlet in the world, that does not contain its victims; and here the question arises, whether physicians, from their inattention and apparent indifference to the subject, may not justly be held responsible in a good degree, if not for its universal prevalence, for at least a large share of the remediless injury and life-long suffering so naturally and inevitably resulting from the unskillful and most vicious treatment to which the disease is so often subjected.

To impute to physicians a frigid indifference or even the slightest lack of sympathy towards the afflicted, would be manifest injustice. Men whose lives are characterized by the noblest acts of benevolence, and whose predominant purpose and unselfish aim is to relieve human suffering, are least of all men obnoxious to such a charge. Nevertheless, there is resting somewhere a fearful responsibility, and the conviction forced upon the mind long since is gaining strength with every day's observation, that if hernia had received but a small share of the attention it deserves, and which has been so zealously and successfully devoted to every other disease, it would now be comparatively rare, and trivial in its character, instead of being found in every household, and so often in its most aggravated and irremediable form.

However easy to explain, it is believed to be very difficult to justify the utter neglect by the profession of hygienic interests so vast and so important to the world; interests, too, whose very nature precludes all hope of their proper protection and preservation, without that

knowledge and that experience which can be acquired only by the practicing physician.

All other diseases are supposed to come legitimately and exclusively under the supervision of those more or less thoroughly versed in all that pertains to the healing art, and hence their treatment is conducted upon certain well-known principles and immutable laws, the strictest observance of which is deemed essential to success, and for the violation of which the practitioner is justly culpable. Whilst hernia, on the contrary, the most common as well as most rebellious to treatment of all diseases, is left by common consent, as it were, either to the resources of the patient himself or of his neighboring mechanic, having no knowledge of the various organs and structures involved, nor of the laws of cure, and hence is treated, as might be expected, with neither principle to guide, nor law to govern in the application of the (so called) remedy employed.

The idea simply of an *opposing force* to prevent protrusion of the bowels appears to have been the only indication, and to secure this object, regardless of all else, has apparently been the thing aimed at in the construction of trusses; and even this, for obvious reasons, has proved a most signal failure.

It is not difficult, therefore, to understand why trusses, as regards their principles and operation, have not been essentially improved—neither will the statement seem an exaggeration to the surgeon who will take the trouble to think on this subject, still less to him who, by careful observation, will familiarize himself with their practical working and effects—that there is more suffering from *hernia and its concomitants* than would be if trusses were unknown to the world. It is not intended to underrate the good that has been accomplished by these instruments. Instances are numerous where the greatest benefits have been derived from their use, and cases are not wanting in which radical cures have been effected. In deciding upon the merits of a remedy for disease, however, the intelligent surgeon will not be guided by results in isolated cases; and though it could be shown even that a given plan of treatment produced favorable results in many instances and with considerable uniformity; still it would only be in keeping with that commendable spirit of inquiry which so characterizes the profession of the present day, to ascertain whether such treatment, however successful and popular, could not be further improved.

But should it appear, on the other hand, that the means employed *failed, as a general rule*, to accomplish its objects, and besides, that they very often proved the *certain cause of evil*, then most clearly it

becomes the imperative duty of those whose province it is, to endeavor on the one hand to enhance the good results, and on the other to diminish the evils. Such is the case with hernia. Its treatment is anything but satisfactory; the truss not only fails of its object, but its use too often aggravates the disease, besides causing other injuries much to be deplored, and which no human agency can relieve.

It is stated above that trusses have never been essentially improved. "Hull's Truss," so widely and favorably known, underwent a modification of form very early in its history, by changing its previously *convex* to its present slightly *concave* surface. This alteration, which in some respects is a decided improvement, was first suggested and urged upon its inventor (the late Dr. Hull) by the venerable Mott; and in view of the incalculable benefits conferred by this change, though regarded as trivial by some, and even objectionable by others, it deserves to rank high among the many brilliant achievements of this justly distinguished surgeon.

The reader is aware, that in his notes to "Cooper's Dictionary," under the head of "Hernia," and again under that of "Truss," the learned Reese also advocates the concave pad, setting forth its advantages and importance in the most forcible and conclusive manner. On this subject, the professor very justly remarks: "It is no marvel that so few radical cures were ever known by the truss when the convex pad of the instrument was fitted to the mouth of the rupture, thus enlarging the hernial opening." If evidence were wanted to show that the profession have entirely ignored this subject, practically considered, it is found in the fact, that the foregoing unequivocal testimony of Dr. Reese as to the unfitness of the convex truss for the purpose intended, has been upon record in the pages of a popular text-book so many years, apparently unnoticed. Such language concerning the only popular remedy for *any other disease*, however rare, could not have failed to elicit discussion as well as action by medical men.

It is not to be inferred that the convex pad, in order to act injuriously in the manner alleged by the Professor, must be literally "fitted to the mouth of the rupture;" nor is it to be supposed that the evil alluded to is confined wholly to truss-pads of the smallest dimensions and most conical in form. It is true that, from their size as well as form, these are best adapted to "thus enlarging the hernial opening;" and that they accomplish this natural and perfectly legitimate result most speedily and with greater certainty, does not admit of a doubt.

The most mischievous results, however, are not unfrequently produced by the larger instruments; and from their greater liability to

impinge the cord, as well as from the greater loss of tissue by absorption which they so often occasion, it is very questionable (as trusses are used the world over, without regard to fitness in any respect,) whether the semi-spheroidal, ovoid, and pear-shaped pads of ordinary size, all of which are so extensively used, are not more than all others to be deprecated.

Injurious as these instruments undoubtedly are, it must be admitted that, in competent hands, they would be far less so. Moreover, cases of rupture are seen, now and then, where the indications are best fulfilled by the application (for a time) of a small and slightly convex truss-pad. These, however, are cases where, usually, the hernia has existed for a considerable time, and been subjected to the action of the conical truss until, in consequence of the scooping out of the tissues adjacent to the rupture, the continuance of an instrument with its centre more or less prominent or elevated becomes a seeming necessity in order to retain the viscera. By skillful management and careful attention, however, in ordinary cases of this description, these difficulties may be so far overcome as to admit of the application of an instrument which cannot do further injury, not only, but which, with care and perseverance, sometimes result in the radical cure of the disease.

Though absorption of tissue to some extent is one of the inevitable effects of trusses, the amount of substance thus lost depends very much upon the size and form of the instrument employed, and the degree of pressure exerted by the spring; and those who have witnessed these effects of the ordinary convex pads need no further evidence of the injury thus occasioned, particularly when long worn, and with the pressure which, under such circumstances, usually becomes requisite for the retention of the viscera.

Compression of the vessels of the spermatic cord, and consequent atrophy of the organs they are designed to nourish, is another evil incident to the use of the convex truss. Though this has been mentioned as a possible event, to be guarded against in the treatment of hernia, we have not seen it noticed by authors as an actual occurrence, or as being very likely to happen from the use of trusses. Such, however, is known to be the fact, and with a frequency and to an extent of which it is believed physicians have no just conceptions.

The difficulty, amounting in many cases to an impossibility almost, of keeping the ordinary convex pad from contact with, and projecting more or less over, the pubes, must have been observed by every on Looking now at the exposed situation of the cord, from the moment

of its emergence from the abdominal ring, the great danger of its impingement and liability to injury must be perfectly manifest; and that many *are thus injured* for life, is far less marvelous than that so many escape. That a very large majority of persons wearing this kind of instrument are not seriously affected in the manner stated, is believed to be owing to the following causes:

In some cases of rupture, moderate pressure only is exerted, which does not arrest the blood in the artery. In others, where greater force is employed, and when, otherwise, they would suffer more or less, a liberal deposit of fatty tissue at this point affords partial, and for a while perhaps complete, protection; and lastly, the instrument, usually, is removed at night—thus giving play to those silent, but mighty, recuperative forces with which (so fortunately for our race) the human system is endowed; so that, in this "irrepressible conflict," many times of years, between nature on the one hand and art (?) on the other, it is not wonderful that the former should *sometimes* triumph, as she has so many times before, even over instruments of steel.

To these causes, and these only, do all men, wearing the ordinary convex truss *overlapping the pubes*, owe their exemption from either partial or complete emasculation. Is it urged that there is no necessity for wearing the instrument as described? Whether avoidable or not, it suffices present purposes, that the evil will be perpetuated, doubtless, until physicians shall regard it of sufficient importance to admonish those who are (*or certainly ought to be*) under their care, of the impending danger, and enlighten them as to the means of escape.

It is to the want of such hints and just such instructions from this, the only legitimate source, that much of the suffering and remediless injury consequent upon *hernia* and *its treatment* is justly attributable. But that it is often impracticable to prevent impingement of the cord, as mentioned, is by no means difficult to comprehend. It is well known that, except in the slightest cases, *ruptures cannot be controlled by this pad with its apex sufficiently raised above the ring for the pad to clear the bone;* the slightest effort forces the viscera out beneath its beveled edge, and especially if the pad is attached to the spring by the universal joint, as first introduced in London by Salmon & Ody, and since to a considerable extent by others in this country.

Again, in corpulent persons, with rigid abdominal walls, (conditions which usually coexist,) this tendency of the instrument to rest upon the pubes has never yet been successfully resisted; and in all cases of this description it is quite obvious that the forms of pad last

above mentioned are peculiarly obnoxious, and never should be employed without the greatest caution, and only by those who have been apprised of the consequences that may ensue.

True, with any considerable rotundity of abdomen, is found usually not only the fully-developed muscle, but also a liberal supply of adipose tissue, which here serves, as before stated, to protect the cord at least for a time. It is here to be observed, however, that under the average pressure of truss-springs, this cellular substance with the overlying integuments, as well as the muscle beneath, (so far as it is acted upon by the instrument,) become so attenuated as no longer to afford the slightest protection to the cord; and exposed as these vessels now are for months and years to the direct action of the truss-pad, *anteriorly*, and rendered more than doubly effective by a corresponding counter-pressure by the bone, *posteriorly*, the idea of their escaping injury cannot for a moment be entertained.

But admitting even, that the instrument may rest upon the pubes without injury, which, however, it cannot, even then, the benefits derived are temporary only; in other words, of a negative character, and are sooner or later more than counterbalanced by a positive evil of a very serious nature. The inguinal canal in this case, instead of being supported and closed by the instrument throughout its length, as, if possible, it always should be, is merely dammed across or obstructed at its outlet, thus permitting the viscera to occupy, overstretch, and drag down all its upper portion, until the canal is entirely obliterated and the simple *oblique* is converted into the unmanageable and irremediable *direct* hernia. This, as is well known, is the usual condition of old ruptures; and that it is brought about in the manner here described, there is every reason to believe.

Surgeons who have given the treatment of hernia by trusses the least attention, are aware, as is every ruptured man, how easy it is, even in the worst cases, to prevent the escape of the bowel by very slight pressure, comparatively, by the ends of the fingers properly placed upon the parts—a fact, moreover, which explains itself. Hence, upon the same principle, the *smaller pads*, especially when applied with that nice discrimination as to force, *the importance of which cannot be over-estimated*, are far *less* capable of bad results than are the ordinary instruments above noticed.

Hernia, like other surgical diseases as well as injuries, never presents itself for treatment with barely one single indication to be met; there are in all cases several of more or less importance, and these ever varying with different patients, and even in the same case, from

time to time during its progress; and it will not be denied that the best interests of the patient demand that all these be duly considered.

It should be impressed upon the reader, and is therefore repeated here, that in the treatment of this malady, the amount of pressure by the instrument is of paramount importance, and demands special attention and the wisest discrimination. Take, for instance, the thin-walled and flabby abdomen, so ready to recede upon the application of the slightest external force; apply here an instrument of only the average strength of truss-springs with the small conical pad attached, and no one *ought* to be disappointed at a result so natural as that of enlargement of the hernial apertures.

Instruments of this description, especially in subjects like the above, *may be kept above the bone* for the most part, and hence their action upon the weak and yielding parietes is not restrained or opposed, as in the case of larger pads, by pressure against the pubes; and therefore, it will be seen that, with the entire force of the spring brought to a point, and bearing directly upon the rupture—these tissues yielding alike, as they do in all directions from the apex of the truss-pad—the effect above noticed is a foregone conclusion. In vain would different results challenge explanation. And yet, in another class of cases, and under different circumstances, presently to be explained, this same instrument sometimes accomplishes far better results—even a radical cure of the disease.

In cases like those mentioned, where the small pad works so injuriously by distending the hernial passage, the ordinary instrument and those of larger dimensions are, *in this respect*, far less hurtful. On the other hand, however, as regards the disastrous effects of pressure upon the *vessels* of the spermatic cord, they are much more to be dreaded, because of the impossibility of retaining the rupture, and at the same time avoiding these vessels.

Nearly all trusses now in use to any considerable extent, are essentially convex in their elements. "Hull's Truss," with a limited number of others of similar form, and the "Multipedal Truss," introduced in this city some three years since, are believed to constitute the principal exceptions.

That the instrument of *concave* form, so far as regards loss of tissue by absorption and "enlarging the hernial opening," possesses decided advantages over those of *convex* or conical shape, is a self-evident proposition; and it may here be stated, that a careful examination of a large number of cases in which the concave truss had been worn for

years, has failed to reveal the last-mentioned evil in a very marked degree, in a single instance. Nor is this at all strange.

As regards interference with the circulation in the spermatic vessels, however, they are by no means less obnoxious than the ordinary convex truss-pad, the ridge or elevation traversing the margin of the *concave pad* rendering them peculiarly liable to operate injuriously in the manner alleged, and even more so, it is believed, than the ordinary instruments, which are more or less convex in form.

That trusses do not fulfill the indications for which they are designed in a satisfactory manner, is not a new idea. The profession always and everywhere have had to lament their defects, while the victims of hernia, from sad experience, have learned to deprecate and deplore them. Universally admitted, though it be, that these instruments fall short of their intended purpose—apparent as it must be also to every one that they are many times injurious in their effects—yet the precise nature of these defects and their consequences have never been fully pointed out; or if they have been, they have failed most signally, and not less strangely, to attract the attention of medical men.

It is perfectly natural and perhaps proper, if not necessary, that different theories should prevail regarding the action and adaptation to disease of certain *medicinal* agents, and for obvious reasons it is not always easy to harmonize such conflicting views. But as relates to *trusses* and most other mechanical appliances, the same reasons do not exist for any great diversity of opinion.

In a case of fracture, for example, every surgeon very properly considers himself competent to judge of the fitness of the dressings he employs—at all events, *experience teaches, in this case*, a just appreciation of his remedy, and if for every good result he is menaced by a score or more of crooked limbs and false joints, he is by no means slow to seek out and remedy the evil. So, also, in the disease under consideration, there is no more difficulty in determining whether the instrument employed fulfills the indications of treatment properly, and whether results are satisfactory or otherwise, than there is in deciding like questions in the simplest case of fractured bone. And it may here be remarked, that if all the accidents and injuries of this nature were ignored and entirely overlooked by the profession, the consequent suffering could scarcely compare, in the aggregate, with what is now and ever has been experienced by the legion of ruptured persons, solely from want of such advice and such service as medical men only are or can be competent to render.

In view of the different varieties of hernia and the peculiarities of individual cases so constantly manifested, it is a noteworthy fact, and highly significant of the evils alluded to, that, with very rare exceptions, the truss is the same stereotyped instrument—essentially so—the world over. Add to this, that trusses are distributed broadcast over the land, and applied indiscriminately by everybody, (excepting those only who may justly be considered competent,) and the proof becomes at once conclusive and irresistible that the prevailing sentiment as regards the treatment of this disease needs to be corrected.

Though it is impossible to devise an instrument well suited to the different species of hernia—or to every case of the same variety—or even, perhaps, to the same case throughout its progress—yet there are believed to be *faults* which may be avoided, as well as *principles which should be observed*, in the construction of all instruments of this kind.

Of the nature of these *faults* and *principles* the reader is already aware, and until further experience shall demonstrate the contrary, it will be assumed that the *former* are wholly avoided and the *latter* amply secured in the "Multipedal Truss," before mentioned, and which here claims to be briefly noticed.

As its name implies, the rupture pad of this instrument is provided with several separate and distinct bearings, so that the pressure is exerted at *intervals contiguous to* (instead of *directly over*) the hernial passage. By this arrangement, it will be seen, are gained the following advantages:

The knobs of the instrument imbed themselves in the tissues and render it immovable. Pressure thus applied necessarily corrugates the parts and approximates the openings. Whatever of tissue may be lost by absorption underneath the feet of the pad, is more than compensated for by a *positive increase of tissue* in the interspaces, consequent upon the hypernutrition always caused and maintained by the instrument. The viscera are much more effectually retained, and with far less force, from the spring. The circulation in the spermatic vessels remains unimpeded, because this instrument is far less liable to displacement not only, but if placed upon the bone, the cord cannot be confined under any one of the nodules; and moreover, if it could be thus compressed, no patient would long submit to the discomforts which would thus be occasioned.

Radical Cure of Hernia by the Truss.—Before leaving this subject, it is proposed to discuss the question briefly—*How does the Truss cure Hernia?* The popular theory as to the *modus operandi* of the truss in

the cure of the disease, is, "it excites inflammation in, and thus closes the neck of, the hernial sac."

If dissections of these parts, after cures have thus been effected by the instrument, have demonstrated this phenomenon, (closure of the sac,) as an actual occurrence, the question is at once disposed of. Having, however, seen no such positive evidence as can be furnished only by means of the knife, it must be assumed for the present, that the foregoing doctrine is not without its vulnerable points.

It is believed, for instance, that in all ordinary reducible herniæ, (and these only are claimed to be thus curable,) the sac itself, as well as its contents, recedes or is returned in the process of reduction, if not entirely, so far within the abdominal walls as to escape any such direct action upon it by the truss-pad, as would result in adhesive inflammation and consequent closure of its neck. The first evidence to be offered in support of this opinion, is simply the sense of touch; and to one accustomed to such manipulations as are required for the reduction of hernia, this alone would, in most cases, be conclusive; for, except when there are large depositions of fat, there is no difficulty in determining this question. True, we have the concurrent testimony of most writers, that *thickening* of the *sac* (?) is of frequent occurrence; and it is well known, also, that the constriction of the neck, brought about in this manner, has gone so far sometimes as to cause strangulation. So, also, though very rarely, have apparent cures resulted from wearing trusses for years, with the elongated and displaced sac, and perhaps a portion of the caul, also, constantly in the scrotum.

Such combined action of the pad in front, and the bone "in the rear"—these tissues being confined for years between them—could not result otherwise; without this *counter-pressure* by the pubes, however, it is doubtful whether even *this result* would ever be realized, much less *inflammation*.

But there are other reasons for supposing that the sac resumes its normal position too nearly, to become inflamed by the action of the truss.

If it be admitted, as it must be, that the sac passes *at least* beneath the superior pillar of the abdominal ring, then the question comes up, If the ordinary convex pad is *usually* worn overlapping the pubes as alleged, how can it produce inflammation in the sac, while thus guarded by the bone?

Again, if the cure of hernia is dependent upon inflammation of the sac, caused by the truss, such fortunate results would be most readily attainable and oftenest realized in those cases where is interposed be-

tween the instrument and the sac the *least amount* of animal tissue; and this, for the obvious reason that in cases of this description, the part to be acted upon is more exposed and accessible to the direct influence of the truss, and thus far more liable to take on inflammatory action, than when the sac is buried to any considerable depth beneath the surface.

Now what are the facts? They show that radical cures of hernia by the truss are confined almost exclusively to persons with fully developed muscles and no inconsiderable amount of adipose tissue at the point where the instrument usually rests; while in the opposite condition, where the muscles are naturally thin, or become attenuated by injudicious treatment or otherwise, cures by the convex truss are rarely if ever witnessed.

One more argument in support of the view here taken, and not specially favoring the theory of "inflammation of the sac," must suffice, viz.: the fact that several different surgical operations, all supposed to involve the peritoneum, (and for this reason denounced by many as dangerous,) have been performed "thousands of times *without any bad results*." Now it is scarcely to be supposed that an operation like Wutzer's, for instance, (which is familiar to all,) could have been practiced extensively as it has been, without (in the words of the author) "severe peritonitis, still less any fatal results," if the peritoneum, as supposed, were pierced by the instrument employed, and the instrument, moreover, retained in its position for several days, and even weeks, as has been done; the tissues meanwhile, *including the peritoneum*, being so firmly compressed as not unfrequently to cause sloughing of the integuments. We repeat, the idea that this delicate and highly susceptible membrane could be subjected to such treatment "thousands of times without any bad results," is scarcely to be tolerated. And yet, if the peritoneum is usually found so low in the canal as to be bruised and inflamed by the truss, it is very difficult to see how it can escape in the foregoing and other somewhat similar operations. Finally, it is by no means clear that the truss under any circumstances could produce inflammation in the hernial sac, unless, perhaps, by confining it between the instrument and pubes, and with a degree of pressure which the patient would scarcely endure.

Moreover, if it could be thus produced, what assurances can be had that the torch thus applied may not result in the destruction of the citadel? By what means is inflammation in this sensitive structure to be hedged in? Once produced, how is it controlled so as never to extend beyond the limits of the neck of the sac? and how so nicely

graduated as *never, under any truss*, to have resulted in disaster of any kind—either ulceration, abscess, or even the slightest constitutional disturbance? No effect, save only the outpouring of lymph and agglutination and obliteration of the passage, and this the tardy work of months and even years.

But to return to the question. It has been stated that cures by the convex truss seldom or never occur in persons of thin and flabby abdominal walls; while in those of well-developed muscle and more rigid fibre cures do sometimes take place.

That results so antagonistic are produced by the same instrument is not incomprehensible. The readiness of the flabby muscles to recede upon the slightest touch of the instrument, as noticed on a preceding page, sufficiently accounts for the failure of the ordinary truss in such cases. It may be remarked, however, that though these are more difficult to treat successfully, yet with a suitable truss and judicious treatment they not unfrequently yield and entirely recover.

But, as was just observed, the most favorable cases for the radical treatment by the convex truss are persons with fully developed muscles and more or less rotundity of abdomen, and even inclining to corpulency—the latter being apparently most favored in this respect, for reasons presently shown.

The abdominal parietes in this description of persons are capable of resisting almost any amount of pressure, owing to the greater thickness and rigidity of their muscles, and still more perhaps to the force exerted in the opposite direction by the larger volume and greater weight of the abdominal viscera. Hence it will be seen that the strength of the ordinary truss spring does not suffice to drive the muscles so far backward as materially, if at all, to "enlarge the hernial opening," by overstretching these tissues; consequently the action of the instrument, *if not too small and conical*, is confined primarily to the skin and subjacent tissues, extending next to the external oblique muscle, where, if the issue be a favorable one, its work is supposed to end. So far at least as regards the *curative* agency of the instrument, its functions cease with the perfect consolidation of all the tissues anteriorly to the inguinal canal—the skin, cellular substance, and external oblique muscle—this hardening process fully accomplished, and the cure is believed to be also achieved, if effected at all by the instrument. And here is found what is regarded as the true solution of the question above proposed; the consolidation of these structures, resulting from mechanical pressure, having rendered the anterior wall of the passage sufficiently rigid and unyielding no lon-

ger to admit of the escape of the viscera through their accustomed channel. In addition to the above mentioned effects of the truss, the canal is doubtless somewhat narrowed; and besides, it were not strange if, in some instances, slight adhesions occurred at the "mouth of the rupture;" and if so, these contribute of course to the happy result.

That corpulency is favorable to successful treatment and cure, as was observed, is supposed not to be wholly due to the greater resistance to pressure which the parietes, in such cases, exert—there are other reasons.

As the abdominal walls advance in obedience to the distending forces within, the course of the canal is changed, and becomes less and less favorable to the exit of the viscera, as these coverings continue thus to expand. Nor is this all. The pressure exerted by the viscera upon the internal oblique and transversalis, the conjoined tendons of which enter so largely into the formation of the gaping *entrance* to, as well as constituting also *mainly* the upper and posterior portion of the *wall* of this passage, must have the effect to modify and contract this internal opening, and perhaps impart to the passage a *valvular* character. How far the same influences may tend to obliterate that funnel-like depression or species of *cul-de sac* in the peritoneum, always existing and justly deemed conducive to hernia, it is difficult to conceive.

Whether, in estimating the force exerted upon the abdominal parietes by the viscera, the laws of gravitation should be considered or not, it may be mentioned that in the above described conditions the centre of gravity is removed from this natural outlet to a point at a greater or less distance above and anterior to it; and, at all events, the force exerted is more widely distributed.

As an evidence of the greater power of resistance, at the usual place of ruptures, in cases of corpulency, and still more so in persons with strictly pendulous bellies, it may be observed that umbilical ruptures occurring in the adult male subject are confined almost wholly to corpulent men; while, moreover, in those having the pendulous abdomen, ruptures seldom or never occur, except from violence, and then usually in that form known as "ventral hernia:" thus showing, in either case, that for some reason the inguinal region, where natural openings exist, and the point originally by far the weakest, has now become more effectually barred against the escape of the bowels than any other portion of the abdominal walls—resisting their exit, even to the involvement of laceration of muscular tissue at different remote points.

Now, if the last described cases are most favorable to successful treatment, of which there is no doubt; and if these constitute but a very small minority of this class of sufferers, as they certainly do—then it follows, of course, that by far the larger portion of these unhappy persons are also the more unfortunate in this respect. And here the ever-recurring and momentous question addresses itself with a peculiar force and significancy—Cannot something more be done than has yet been done towards the mitigation of sufferings and the protection of interests so vast and incomprehensible? And, again, who is it, if not the medical profession, that is competent to such a work? Where, if not here, will such a reform be inaugurated, with any prospect or hope of its accomplishment?

We are not unaware of the difficulties which so encompass this whole subject. Not only the difficulty of treating the disease satisfactorily even by the most approved means yet devised, but the difficulties, also, which from their nature would so embarrass every step towards the accomplishment of the reform so much to be desired in this department of the healing art.

It is not to be expected, perhaps, that every practitioner should furnish himself with suitable appliances of this nature for every emergency; though it is scarcely too much to hope that every member of the profession may yet be convinced that interests of such magnitude are not unworthy of his attention.

Institutions and organizations for the promotion of similar objects in other countries have contributed to good results, and could not fail of like effects here, to a greater or less extent.

(The discussion of other points of interest in connection with this subject generally, together with statistics relating to the same topic, and now in course of preparation, will be reserved for a future occasion.

No. 2 Barclay Street,
New York.

Translations prepared expressly for the Monthly.

THE ACTION OF PHOSPHORUS ON THE BLOOD.

BY PROFESSOR NASSE.

1. A grain and a half of phosphorus, dissolved in an ounce and a half of rape-seed oil, was given to a cur, being mixed with the food he consumed during two days. As he only took food once a day, consequently each time he consumed three-quarters of a grain. No symp-

tom manifested until the end of the second day; then his appetite failed, his movements became heavy, the urine sanguinolent; some loss of blood by the anus. The fifth day the dog rapidly became more feeble, and died. In the cadaver, the blood was found entirely liquid, without clot. The stomach was not inflamed. Abdominal cavity contained a little extravasated blood; a considerable quantity of this was found behind the peritoneum, aside of the vertebræ, and especially under the kidneys, and along the course of the ureters to the bladder. A layer of sanguinolent mucus, one or two lines thick, was found attached to the mucous membrane of the duodenum, which was not even softened. The lower portion of the intestinal canal was bloody. The kidneys were neither inflamed nor infiltrated with blood. The mucous membrane of the bladder was of a slight reddish hue. The testicles were colored red from bloody extravasations. In the liver ten or twelve inflamed nodules, from the size of a pea to that of a bean, were observed, generally located near the surface; these nodules were gray, yellowish, and soft in the centre, surrounded by a red, firm substance.

2. A bitch of larger size took the first day one grain, the second a grain and a half, and the third a half grain of phosphorus dissolved in poppy oil; that is, three grains in three days. It was taken in the food with which it was mixed, and she ate this regularly until the evening of the third day, when a little stiffness was observed in the posterior extremities, and the hair began to bristle up; otherwise the bitch was active, drinking very much. Her strength suddenly failed on the fourth day. Seven or ten minutes after death, the blood was collected from the vessels; it weighed 545 grammes; the whole weight of the dog was 13 kilogrammes. The blood did not coagulate; there were not even flakes in it; the red color brightened a little in the air, but under the microscope it composed itself in the normal way. The stomach was of a dark red, and contained a dark-brown pultaceous mass, (coagulated blood,) which was even found in the large intestine. The appendicula vermiformis was also filled with blood. The mucous membrane of the small intestine was softened, thickened, and strongly injected, consequently inflamed. Extravasated blood was found in the cellular tissue surrounding the pancreas, partly coagulated, and consequently diffused at first. The liver was full of blood. The urine dark, but not sanguinolent. Everything else was normal. Neither brain nor spinal marrow contained any extravasated blood.

3. A large old hunting dog took daily with his food, without any repugnance for four days, three-quarters of a grain of phosphorus dis-

solved in three-quarters of an ounce of oil; thus taking six grains. On the fourth day he lost his appetite. The day following blood ran from his mouth and anus. Death about noon. The body was opened in the afternoon. Everywhere the blood was liquid, viscous, and of a dark color; it did not coagulate in the air, and the *cruor* (blood-globules) did not separate from the serum. Cadaveric rigidity soon took place. The mucous membrane of the *duodenum* and the upper portion of the *jejunum* exhibited some red spots. The kidneys were injected, but the liver was not filled with blood. There was much sanguinolent mucus in the stomach.

4. A tolerably strong pregnant bitch took a grain of phosphorus in an ounce of oil; no effect was observed during twenty-four hours. The second day a grain and a half of phosphorus, dissolved in an ounce and a half of poppy oil, was slowly injected into the jugular vein; in a few minutes the animal ceased to live. The blood was coagulated in the cadaver opened immediately. The fœtus was still alive in the uterus.

5. At five o'clock in the evening a half ounce of poppy oil, holding in solution a half grain of phosphorus, was injected into the stomach of a very large rabbit. The experiment was repeated the next morning at 11 o'clock, with 12 grammes of the same phosphorous solution. The animal remained tranquil; it took no nourishment except at noon; the movements of the heart were strongly quickened. It ceased to live during the following night. In the morning the body was found rigid. An opening in the jugalar vein gave no blood. The lungs were filled with blood—many clots in the heart. The intestinal canal was not inflamed, and there were no extravasations. In the contents of the stomach, phosphoric acid was detected. This experiment was repeated on another rabbit, with the same result.

6. Five milligrammes of phosphorus, mixed with a little rye paste, were introduced into the stomach of a strong frog. There was no vomiting. Death supervened at the end of twelve hours. The blood contained in the heart was liquid. Phosphorus could be detected in the stomach and upper portion of the intestinal canal. No cadaveric rigidity.

These are the experiments of Nasse, which seem to invite attention. Heretofore, as regards the effects produced by the administration of phosphorus, we have only known the excitation of the nervous system and the genital organs, or death, with inflammation of the stomach and intestinal canal. The liquid condition of the blood is a fact quite new, and the more remarkable, because it is constant whenever the

phosphorus has been absorbed and assimilated. The fourth experiment is not contradictory, for death may have been induced by the presence of the oil in the pulmonary capillaries—phosphorus could not have been assimilated.

The experiments with the rabbits, whose hearts contained coagulated blood, seem not to agree with those made on dogs; but, if we reflect on the readiness with which the rabbits succumbed, recollecting the presence of non-absorbed phosphorus in the stomach and intestines, we must believe that the phosphorus could not have been absorbed, which would explain the coagulation of the blood in the heart.

The liquidity of the blood appears to us a constant occurrence resulting from the action of phosphorus. This action is explained by Mandl, in two ways: either the phosphorus acts chemically on the plasticity of the blood, by combining with its elements, or it acts indirectly on it, through the medium of the nervous system. The first explanation appears refuted by the fourth experiment, in which phosphorus dissolved in oil was injected in the jugular vein of a dog. The blood, upon which the phosphorus could have directly exerted its influence, was found coagulated; from which one may conclude that the liquidity of the blood, observed after the injection of phosphorus, in the first, second and third experiments, was not the result of direct chemical action on the blood.

The coagulation of the blood cannot be attributed to the phosphorus dissolved in the oil, since Nasse has elsewhere shown that indifferent substances, as oil, injected in the blood, sometimes produce coagulation. Furthermore, in this case Nasse says that an analysis of the blood would not explain the energetic action of the phosphorus.

In the opinion of Mandl, probabilities are in favor of the second supposition. They are based upon what has been observed as regards the liquidity of the blood in certain cases of sudden death by lightning, which only acts on the nervous system. But we know that phosphorus is a very powerful excitant of the nervous system, like electricity. Furthermore, in persons struck by lightning, the fluidity of the blood is generally connected with a very considerable cadaveric rigidity; so great that sometimes the body remains upright in the position the individual occupied at the instant of the electrical discharge. A very decided cadaveric rigidity has also been observed by Nasse, in dogs who have taken phosphorus, despite the fluidity of the total mass of the blood.—*Gazette des Hôpitaux.* L. H. S.

URÆMIA.

BY M. TREITZ.

1. Whenever the urinary secretion is suppressed, the substances destined for excretion, and especially urea, accumulate in the blood, as modern chemistry has shown us.

2. This accumulation is also effected by the resorption of the urine already secreted.

3. The superabundance of urea in the blood (uræmia) forms in itself an important pathological condition, and predisposes probably to exudations in different organs.

4. Urea passes from the blood in all the secretions; its presence has been detected in the saliva, the milk, the cutaneous secretion, as well as the transudations.

5. It is most frequently and most abundantly encountered on the intestinal mucous membrane.

6. It is regularly resolved by the action of the intestinal liquids into carbonate of ammonia—a fact which the author ascertained by experiment.

7. The carbonate of ammonia provokes irritation, blennorrhœa, ramollissement, catarrh, and dysenteric destruction of the intestinal mucous membrane. Several forms of dysentery arise from this source. Mortification may produce gangrene of the intestine; but a cure by cicatrization is possible if the intestinal liquids should lose their corrosive properties.

8. The carbonate of ammonia, spread throughout the intestinal canal, is reabsorbed by the mucous membrane, and transported through the ordinary channels into the blood; from this results ammoniacal poisoning of the blood—*ammonihæmia*, and the phenomena usually called *uræmic*. The author establishes a difference between ammonihæmia and uræmia, reserving this last name simply for an accumulation of urea in the blood, whilst he understands by the first the presence of ammonia in the blood and the phenomena proceeding from it. He does not agree that ammonihæmia is developed in the manner pointed out by Frerichs, that is, by a decomposition of the urea, which takes place in the blood itself, but he attributes it to the absorption of the ammonia which is formed by the decomposition of the urea secreted in the intestines.

9. Ammonihæmia is also developed in a direct way, through absorption of decomposed and ammoniacal urine, as in cases of urinary fistulæ, &c.

10. The infection of the blood, by the substances mentioned above, has grave consequences only when their excretion by the normal secretory organs is prevented.—*Presse Med. Belge.* L. H. S.

MONTHLY SUMMARY OF AMERICAN MEDICAL JOURNALISM.

By O. C. GIBBS, M.D., Frewsburg, N. Y.

Origin of Ovariotomy.—In the *North American Medico-Chirurgical Review*, for November, Prof. S. D. Gross, in a biographical essay of Dr. Ephraim McDowell, remarks upon the subject of ovariotomy at some length. "To Kentucky," he says, "belongs the honor of having furnished to the world the first case of extirpation of the ovary, for organic disease of this organ. This honor is justly and exclusively due to the late Dr. Ephraim McDowell, of Danville."

His first operation was performed upon Mrs. Crawford, of Kentucky, in December, 1809. It is not positively known how many times Dr. McDowell performed ovariotomy, but it is supposed that he operated *thirteen* times, with success in at least *eight*. It certainly required no small degree of moral heroism, for a pioneer physician, in the backwoods of the New World, to be also a pioneer in so extensive and dangerous an operation as ovariotomy. Eminent surgeons of the Old World ridiculed the statement, and many, fifty years later, are still incredulous.

Dr. McDowell was no less successful as a lithotomist. For stone in the bladder he operated at least thirty-two times without the loss of a patient. Prof. Gross says that, in 1812, he operated upon James K. Polk, then in the 17th year of his age.

Spina Bifida.—In the *North American Medico-Chirurgical Review*, for November, Prof. S. D. Gross has an article upon spina bifida, or rather a clinical lecture based upon the report of two cases which were presented at the college clinic. Both the cases reported were treated by injections of iodine, and both died, though the second case, at one time, gave promise of a cure. The patient died in convulsions; the tumor having burst and discharged its contents two months and four days after treatment was commenced. Of all the modes of treatment devised for the cure of spina bifida, Prof. Gross gives his preference to that of compression. The combination of pressure with fine punctures he speaks well of. Thus he says, "Several cases are report-

ed in which a cure was obtained by a combination of methodic pressure with frequently repeated puncture; the latter is to be made subcutaneously with a very fine trocar or bistoury, the opening being well closed immediately afterwards, to prevent the introduction of air. Only a portion of the fluid should, however, be drawn off at a time, as a sudden evacuation of the tumor would be followed by the serious consequences already described."

Climatic Influence of the Northern Lakes.—In the *Nashville Journal of Medicine and Surgery*, Dr. J. N. Graham, of Chicago, has an article upon the above subject. Dr. Graham presents, in person, an illustration of this influence. He regards himself well advanced in the first stage of consumption. In a few months he had fallen away from 130 to 93 pounds; cough was harassing and night-sweats exhausting. In one summer spent at Mackinaw and about Lake Superior he improved every way, and his weight increased from 93 to 111 pounds. Dr. Graham speaks highly of Mackinaw, and says, "During a few weeks spent on the island, I found several persons from the Southern States. Some of them told me they had made this their regular summer resort for a number of years. One gentleman told me he had tried for his health almost all the milder climates of the globe. From the valleys of the Andes of South America, to the sunny plains of Italy; from the waters of the Nile in Egypt, to the heather peaks of Scotia; and yet he had found no climate that agreed with him so well as that of Mackinaw."

Our country evidently presents localities preferable for the consumptive invalid to any in Europe. As a winter residence, however, we think Mackinaw is not the better place; the exposure is too great. In summer, Mackinaw and the Lake Superior region is delightful, and their bracing airs and appetizing amusements are healthful in the extreme; but, as a winter residence, the leeward side of the western mountains would be preferable.

Dr. Graham thinks patients, in the last stage of consumption, should not be sent North, as "their nervous energies wilt under the chilling influence of the climate, and rapidly sink under increased cough, impeded circulation, and the rapid progress of their disease." He might have added that persons in this stage should not be sent from home at all! If sent South, they will sink still more rapidly, under the enervating, debilitating influences of a diminished oxydation, under increased heat and a more rarefied atmosphere.

Dysentery.—The *Nashville Journal of Medicine and Surgery*, for November, has the following: "Dr. Travis, of Marlboro, Tennessee,

in a letter to the editor, says: 'I have taken a new method of treating dysentery. I use three parts of laudanum and one of ess. peppermint, mix, and give a teaspoonful after each dejection. I also give blue pills and quinine to cure the fever, with suitable diet. I have informed some of my professional friends of my mode of treatment, and they have tried it and been successful.'"

Common Salt, and its Medicinal Uses.—In the *Oglethorpe Medical and Surgical Journal*, for October, Prof. G. T. Maxwell has an article upon the above subject. We have space only for a few remarks upon its use in *dysentery* and *diarrhœa*. After speaking very highly of salines in these diseases, he says: "Diarrhœa and dysentery differ materially in their pathology, only in the portion of the intestine attacked by disease; the former affecting the small, the latter the large intestines; and the same principles of treatment are applicable to both diseases. Knowing that we are now treading on disputed grounds, and not desiring to enter upon the discussion of the question, we will only say, we have treated many cases of both diseases satisfactorily, by the same means, modified with reference to the stage. We have used almost every one of the various saline preparations, but there is not one superior to *common salt*, and we have inclined to the opinion, none so good. Its action is mild and certain, and in flavor it is not so disagreeable to the taste as the bitter salts." * * "In hundreds of cases of an aggravated character, where we have administered common salt, the relief has been so prompt and decided, that we feel warranted in placing it before the profession as a remedy of no ordinary value. The mode of administering it is as follows, viz.: Of a saturated solution give a table-spoonful, or less if it nauseates, every hour or two, until two or three watery evacuations are produced, after which give eight or ten grains of Dover's Powder. If there is any indication of periodicity in the attack, combine with the latter quinine, to be repeated *pro re nata*."

We give the above, yet protesting against diarrhœa and dysentery being considered as analogous diseases. Dysentery is always an inflammatory affection of a peculiar character, affecting a particular part. Diarrhœa is not necessarily an inflammation, and the appropriate treatment for each of these diseases is far from being necessarily identical.

Samson Snake-Root, (Gentiana Ochrolenca.)—In the *Oglethorpe Medical and Surgical Journal*, for October, Dr. E. W. Lane has an article upon the remedial properties of this agent. He says of it: "I have used it as an emmenagogue and as a tonic, with entire satis-

faction. I have used it in several cases of dyspepsia, and always with marked benefit; and, in fact, in all cases where there is weakness of the nervous forces, it is *the remedy*."

In a note to this article, by Prof. H. L. Byrd, confirmation is made to these statements. The common people regard it as an emmenagogue, and use it very much as we use ergot.

Gonorrhœa Treated with Tartar-Emetic.—In an article in the *Charleston Medical Journal and Review*, by Dr. F. P. Porcher, tartar-emetic is recommended in gonorrhœa. In regard to his method of using it, he has the following: "In the formative stage of the disease, soon after its appearance—within the first fifteen to thirty-six hours, if possible—and before the inflammation has made any advance, order the recumbent posture to be preserved, and the use of warm mucilaginous drinks, with nitre and doses of *tartar-emetic* sufficient to keep up constant nausea. The sedative circulates to the remote parts of the system, the progress of the inflammation is thus put an end to, and in my experience, *with but one exception*, the disease completely arrested."

Hoffman's Anodyne in Delirium Tremens.—In the same article above referred to in the *Charleston Medical Journal and Review*, Dr. Porcher speaks highly of Hoffman's anodyne in delirium tremens. He says he has used it with satisfactory results in eight cases—"one drachm being administered, diluted with water, repeatedly, until nervous tremor was allayed and sleep induced." In the insomnia connected with this disease, he thinks opium has better effect when combined with tartar-emetic, as follows: "℞.—Tr. opii., gtt. xl.; T. emetic, gr. ¼, repeated every half hour till sleep is induced."

Large Doses of Opium in Centric Convulsions in Children.—In the same paper above referred to, Dr. Porcher commends opium in full doses, in cases of convulsions in young children, when not dependent upon worms or errors in diet. An illustrative case is reported. Dr. Porcher suggests that a combination of chloroform and laudanum would probably be beneficial in these cases. For the last five years we have been in the habit of trusting these cases to chloroform by inhalation, and the results have been so satisfactory that we have had no reason to seek further for remedial aid.

A New Porte-Caustique.—In the same paper, Dr. Porcher has a few remarks upon the porte-caustique. Because of the selection of a cheaper metal than platinum, and because of the often imperfect manufacture of Lallemand's instrument, the cup loaded with nitrate of silver is occasionally left in the bladder. To obviate this objection, Dr.

Porcher occasionally substitutes the use of two other instruments instead. One is a catheter, which is made to serve the purpose of a syringe by means of a metallic rod accurately fitting its cavity. With this, a strong solution of nitrate of silver is injected where desired. The other instrument is constructed very similar to Lallemand's, except instead of the cup, "a bit of sponge is rolled tightly around the end of the central rod, and saturated with a strong solution of nitrate of silver. This can be unmasked when it reaches the proper position, and the caustic made to come in contact with the relaxed tissues, including the mouths of the seminal vessels. And, very recently, indeed, I have accidentally adopted a simple expedient rendering the operation quite safe, which I have just put in practice. It consists in pouring a strong solution of nitrate of silver through the orifice of a hollow catheter after its introduction to the neck of the bladder, which it reaches through perforations made at the distal end, extending around an inch or so from this extremity."

Umbilical Hæmorrhage.—In the *Charleston Medical Journal and Review* for November, Dr. A. N. Talley reports three cases of this unfortunate and troublesome accident. The first two were treated in the usual manner, not omitting the plaster of Paris recommended by Dr. Churchill. Remedial means were ineffectual, and both patients died. The third case was treated with Squibb's liquor of the persulphate of iron. "The effect was instantaneous; the hæmorrhage, which, despite every appliance, had continued fearfully rapid, was at once arrested, and did not again recur. The child is now quite well, and has entirely recovered from the prostration consequent upon the excessive loss of blood."

This one case is not sufficient to establish the merits of the agent employed; but as the result was characteristic and in keeping with its well-known properties, hopes may be entertained of its future usefulness in these formerly intractable cases.

Scarifications of the Glottis.—A few years ago, Dr. Gurdon Buck spoke highly of scarifications in *œdema-glottidis*. The same treatment has been advocated in a recent number of the *London Lancet*. In the *New Orleans Medical News and Hospital Gazette*, for November, Prof. Austin Flint reports a case of laryngitis successfully treated by *tracheotomy;* also two cases of *œdema-glottidis* resulting fatally after the operation of tracheotomy. He thinks the operation was performed quite too late. In one case the glottis was scarified as suggested by Dr. Buck. We quote Prof. Flint's remarks upon scarifications. He says, "The scarifications are not so practicable as they may appear to

be beforehand. In a person struggling for breath—the larynx in constant motion, and efforts at vomiting excited by the presence of the finger in the throat—it is difficult to guide the knife and give the incisions the proper directions. Judging from this case, tracheotomy is an easier operation. The hæmorrhage which is liable to occur, is a serious evil. The blood in this case, accumulating in the air-passages, contributed to the dyspnœa, and probably was in part the occasion of the rapid increase of the difficulty of breathing, although the immediate relief was such that it was hoped the scarifications had proved effectual. This is a point to be considered. Another objection to scarifications, which suggests itself, is the liability of cutting the vocal cords and impairing permanently the voice, in cases in which this method is successfully employed. On the whole, expressing the opinion with due diffidence, in view of the fact that the case now reported is the only one in which scarifications have been attempted under my own observation, I am led to think that tracheotomy is preferable, as more easily performed, giving no more pain to the patient, being at least as innocuous, and vastly more certain."

Veratrum Viride.—In the *Chicago Medical Examiner*, for November, is published a report upon veratrum viride, by Dr. A. Hard, which was prepared for and read before the *Illinois State Medical Society*. The author says, "I have found it most useful in diseases of an inflammatory type, such as acute pneumonia, rheumatism, dysentery, and peritonitis, particularly puerperal peritonitis; and in treating such cases, I administer a full dose when first called, so as to bring the patient under its influence as soon as possible, and in many cases it will be found as effectual in arresting the further progress of the disease, as water to quench fire. After the specific effects of the remedy are obtained, it should be continued in smaller doses, sufficiently large to keep the pulse at or a little below the normal standard."

Of its action, he says, "It is the most reliable arterial sedative, most certain in its effects, and least dangerous of any with which I am acquainted." In the same paper, Prof. W. H. Byford, of Chicago, is quoted as saying, "I have been wary in the use of it in scarlatina and measles, lest it might suppress, by its powerful revulsive direction to the alimentary tubes, the rash." Under other circumstances of inflammation or fever, convulsions, &c., he regards it as "one of our most reliable remedies." Bearing upon the point of propriety of veratrum in eruptive fevers, we would quote the opinion of Dr. Prince, found in another paper, though in the same journal above referred to. Giving the history of an epidemic of scarlet fever, and remarking upon

the treatment, he says, "Some of the cases of scarlatina manifested much excitement in the first stage, and in two cases I used Norwood's tincture of veratrum viride. This acted like a charm in controlling excitement, and moderating the frequency of the pulse."

Dr. Hard quotes Dr. T. D. Fitch as saying, "In his practice, especially in the treatment of the more acute phlegmasia, he has made it supersede the use of both tartrate of antimony and potassa, and the lancet, except in a few rare instances."

Scarlet Fever.—In the *Chicago Medical Examiner*, for November, there is published a report upon *practical medicine*, furnished by Dr. C. Goodbrake, for the *Illinois State Medical Society*. Under separate heads we shall allude to a few of the more novel opinions and practices. First, then, of scarlet fever: Dr. J. N. Niglas' treatment of this disease is *expectant*, and contains nothing noteworthy, except the local treatment. He says, "The region of the parotid and submaxillary glands, from the beginning, I advise to be covered with cotton, and flannel wrapped around the neck; and as soon as the slightest swelling commences to be perceptible, a liniment composed of ol. amygdal. dulc. ʒij., liq. ammon. caust. ʒij., ext. conii. ʒj., gum camphor gr. x., is repeatedly applied during the day, the cotton and flannel wrapped around; and glad am I to say that (during the severe epidemic just passed) none of the cases under my charge were lost by consecutive suppuration."

Dr. Prince would control the pulse with the veratrum viride, and then use the stimulating treatment immediately and freely if need be.

Dr. Hiram Nance saw one very severe case recover under full doses of carbonate of ammonia, that he thinks must have died under any other medication. It (ammonia) was first recommended by a French physician, and Dr. Nance's experience is in its favor.

There are few diseases more nearly allied in nature, or in therapeutic requirements, than *erysipelas*, *diphtheria*, and *scarlet fever*. They are produced by a specific poison, affecting the system peculiarly and specifically. We have not space to enlarge—suffice is to say that muriatic tincture of iron, quinine, and stimulants, have been found of the most service in erysipelas and diphtheria, and they will be found of corresponding benefit in scarlet fever.

For ourselves, we have no doubt that full doses of quinine is one of the most important remedial agents that can be brought to bear upon scarlet fever. Though foreign from our plan, we trust we may be excused for quoting from a transatlantic journal in support of these views. In the *London Lancet*, for October, (American reprint,) Dr. J.

Hawkes, speaking of malignant scarlatina, says, "For those who may have such cases to meet—and no doubt they occur only too often—I can forcibly recommend the use of quinine. My attention was first called to it in this disease, by the excellent little work of Mr. Peter Hood, in which he so strongly urges its adoption in all forms of scarlet fever. I have put his plan to an extensive test in a large dispensary practice, and have every reason to bear testimony to its success."

As additional evidence in support of the tonic and stimulating treatment in scarlet fever, we again quote from the same number of the *Lancet*. Dr. T. J. Graham, speaking also of malignant scarlet fever, says, "There is abundant evidence before the profession in proof that the sesquicarbonate of ammonia possesses specific powers over the worst forms of scarlatina, and that, when the eruption recedes, no means known have the same power in reproducing it, and relieving the patient." * * * "I am fully convinced that this preparation of ammonia, administered regularly day and night, and *trusted to alone*, with a mild aperient and a suitable diet, will be found fully equal to the restoration of the patient. The great and superior value of this excellent medicine in scarlatina and rubeola is, I fear, but half apprehended."

Dysentery.—The report above referred to contains some remarks upon *dysentery*, from which we shall quote a few opinions. Dr. R. G. Laughlin's treatment consists "in the use of calomel, opium, quinine, and the usual astringents, with veratrum viride to control the circulation." He reports satisfactory results.

Dr. J. W. Coleman reported his experience in a severe epidemic of this disease. He says, "Most of the cases required mercurials at the start, combined with opium; and if there was any periodicity in the accompanying fever, we used quinine freely." "We generally commenced the treatment with something like this:

R.—Sub. Murias Hydrarg.,	gr. xij.
Pulv. Opii.,	gr. x.
Carb. Soda,	gr. xxx.

Mix and divide into six powders, one to be taken every three or four hours, according to the severity of the symptoms, and continued them until bilious discharges were procured." Opium was continued with a liberal hand—from one to four grains—the effect and not the amount governing the dose.

If the discharges were profuse and exhausting, he gave every four hours a teaspoonful of the following:

"R.—Tincture Camphor,
Tincture Kino,
Paregoric, } āā."

Neither Dr. Goodbrake, nor any one replying to his circular, alluded to saline cathartics in dysentery, used alternately or conjointly with full doses of opium, and such other remedies as the peculiarities of each case required. This last has proved so successful in our hands, that we would be glad to see some of our Western readers put it to the test.

We observe that Dr. Jackson, in the *Boston Medical and Surgical Journal*, for Nov. 22d, has a few remarks upon the treatment of dysentery. He thinks very highly of the saline treatment, and is confident he has aborted severe attacks of dysentery with a dose of Epsom salts, that under any other known treatment would have been greatly protracted.

Diphtheria.—Upon this subject, but little that is new or interesting is elicited. Dr. Prince says that the local application of the nitrate of silver has not met his expectations. "A weak infusion of capsicum and a saturated solution of chlorate of potash, singly or in combination, have proved more satisfactory." Dr. Goodbrake says, "As a local application to the fauces and tonsils, we found the mur. tr. iron to answer the best purpose in all cases that came under our treatment. We tried the nitrate of silver, sulph. of copper, alum and sulph. of copper combined; but the tinct. of iron seemed to have the best effect in our hands.

The best remedies internally seemed to be quinine, tinc. of iron, chlorate of potassa, and good porter or brandy, with good nutritive diet." No allusion is made to a saturated solution of common salt, as a wash or gargle to the throat; this, of all means, has pleased us the best. We have applied this remedy to the throat for another trouble, which we may as well mention here as elsewhere. A lady of our acquaintance had, for many years, been subject to frequent attacks of quinsy, which always passed on to suppuration. In the last year, we have aborted two severe attacks by the local application of muriated tincture of iron, applied several times a day. We have reduced the remedy with about two parts of water to one of the tincture.

Diarrhœa of Children.—In regard to this disease, we shall quote but one remark from the report. Dr. J. O. Harris remarks upon the treatment as follows: "I found that after exhausting all the usual remedies advised by our standard authors, and by my brother physicians, that quinine in *full* doses, frequently repeated, (acted or seemed to act)

admirably. I thought at the time that I was prescribing empirically, and now I do not pretend to explain the *modus operandi* of the remedy. I only know this, that my patients recovered under the use of quinine, and I still frequently prescribe it, when I see no particular indication for its use."

Pneumonia.—In regard to the treatment of this disease, by those who contributed to the report, there was great unanimity. Veratrum viride took the place of the lancet and antimony; and if the disease manifested any symptoms of periodicity, quinine was regarded as an all-important remedy.

Typhoid Fever.—The following is Dr. Nance's treatment of this form of fever: "My treatment, stated in brief, consisted of spts. nitri. dulc., ʒviij., Norwood's tinct. veratrum viride, gtts. xl. Mix; give one teaspoonful to an adult every three hours, so long as the active stage remains, increasing or diminishing the dose as the case requires. It may be necessary to continue this medicine for eight or ten days, or more. I also prescribe at the same time turpentine emulsion, usually combined with tinct. opii.: the first prescription subdues the activity of the pulse, and acts favorably upon the urinary and perspiratory systems; the latter, containing laudanum, quiets the nerves, promotes sleep; and the spts. turpentine has its specific action upon the glands of the mucous membrane of the bowels." When convalescence is established, or if the patient begins to sink, he resorts to support. "My prescription during the fall, under such circumstances, consisted of sul. cinchonia, grs. iij.; camphor, grs. iv.; carb. ammo., grs. iij. Mix, and give every four hours, and alternate with wine from two to three teaspoonfuls."

We apprehend the secret of success in the treatment of typhoid fever consists in *preventing* rather than *treating* bad symptoms. Many physicians give turpentine only when the tongue is dry and the bowels tympanitic. If turpentine will heal the ulcerated state of the bowels, which is sometimes present in the late stage of bad cases, it is not unreasonable to suppose that, in the incipient stage of this condition, it may act curatively and prevent the diarrhœa, tympanitis, the red and dry tongue, &c. Many only support the system when death seems to be imminent. Tonics, such as quinine modified by opium and wine, can be resorted to much earlier than they often are in this disease. When prostration is very decided, we think Dr. Nance's two or three teaspoonfuls of wine will not bring out the full influence of a supporting treatment.

We have given a tolerably full synopsis of this report, because it is

a good exponent of modern treatment, among Western physicians, of some of our more common diseases.

Hemoptysis Treated with Muriated Tinc. of Iron, &c.—In the *Chicago Medical Examiner*, for November, Prof. N. S. Davis reports an alarming case of hemoptysis, occurring in a lady 24 years old, who had a decided hemorrhagic diathesis; inasmuch as the father of the patient and one sister had previously died from hemoptysis. Common salt, gallic acid, acetate of lead, opium, alum, tinc. matico, tinct. gelseminum, oil turpentine and quinine were all thoroughly tried, with partial and temporary benefit. "At this stage of the case," he says, "we advised the tinct. ferri muriatis, and tinct. of ergot, equal parts, of which forty drops were taken every two hours. Under the use of this mixture the hæmorrhage ceased in less than twenty-four hours, and has not been renewed since."

Diphtheria.—In the *Louisville Medical News*, for October, Dr. S. P. Bryan reports his experience with diphtheria. Within the last year he has treated *fifty-five* cases. In these cases all but sixteen showed the peculiar diphtheritic exudation. We should be glad to give Dr. Bryan's remarks upon the treatment in full, for we regard it as quite judicious; and, besides, it was successful in all of the cases but *one;* but want of space will prevent. We simply copy his recapitulation.

1. "Diphtheria is not a self-limited disease, in the light in which we so regard measles, variola, and typhoid fever, but that its duration may be materially abridged, as well as its violence greatly mitigated, by prompt and proper treatment.

2. "The milder cases of diphtheria require no other treatment than the local application of nitrate of silver, in solution, and the internal use of chlorate of potash, together with generous diet and the cautious use of such mild aperient medicines as will maintain a soluble condition of the bowels; while the more severe cases may generally be very promptly controlled, if the treatment is early commenced, by the addition of quinine, and occasionally of brandy and iron, to the foregoing.

3. "Depletion in this disease, whether direct by blood-letting, or indirect by purgation, &c., is not only a valueless expedient, but, in consequence of its debilitating effects, is positively injurious, by favoring the accession of typhoid symptoms, and preventing a rapid and satisfactory convalescence."

The nitrate of silver is applied—20 grains to the ounce—by thoroughly mopping the throat three or four times a day. This is followed, half an hour later, with a solution of chlorate of potash—℥ij. to

iv. to water Oj.—used as a gargle. In severe cases, his main dependence is placed upon quinine, which, to adults, he gives in from 20 to 30 grains a day. "This," he says, "appeared to control the fever, and to arrest the progress of the disease in all instances, except the single fatal case before referred to, in from two to five days." He says further: "It appeared to me that the quinine exerted a curative influence not inferior to that which it exerts in ordinary malarious fevers; the pulse, which before was small, feeble, and rapid, numbering in some instances from 120 to 140 beats per minute, speedily becomes, under its benign influence, fuller, stronger, and slower, just as we often see in congestive fever."

Dysmenorrhœa.—In the *St. Joseph Med. and Surg. Journal*, for November, Dr. J. B. Snelson has an article upon dysmenorrhœa, in which he recommends quinine in combination with prussiate of iron, particularly in the rheumatic or neuralgic varieties. He would treat the menstrual period with opium and the warm bath, and the intermenstrual period with the following:

"R.—Sulph. Quinine,
Ferri. Ferrocyanureti, ää. gr. xl. M.

Divide into pills No. xx. One of the pills to be taken morning, noon, and night; this treatment to be continued during the whole intermenstrual period." If we rightly remember, Dr. E. J. Tilt, in the *London Lancet*, for 1851 or 1852, recommends quinine in combination with sulphate of iron and hyoscyamus, or opium, for most of the unnatural manifestations of the menstrual function. We are not certain that dysmenorrhœa was included. From the change which strychnine has in our hands over the rheumatic or neuralgic difficulties of a chronic character, we would suggest it, in connection with quinine, in dysmenorrhœa.

Post-Partum Uterine Hæmorrhage.—In the *Lancet and Observer*, for November, Prof. George Mendenhall reports a severe case of post-partum uterine hæmorrhage. The usual means were resorted to without benefit; the hand was inserted into the uterus, also lumps of ice, but still with no check upon the hæmorrhage. Ergot was given, but with no perceptible effect. At this stage a catheter was introduced to the uterine fundus, "and about three ounces of the saturated solution of the persulphate of iron injected through it into that organ." Its retention was secured for a few minutes by the hand in the neck of the uterus. The injection produced no pain, but "from that moment not another drop of fresh blood was discharged from the

uterus and vagina." The patient "recovered without an unpleasant symptom."

In-Growing Toe Nail.—During the past year we have given several methods of curing this troublesome affection. In the *Lancet and Observer*, for November, Dr. B. Weber reports a new method of cure, which we subjoin: "I make use of the following composition:

℞.—Corticis guerci, ... ℥ss.
Gallarum turcicarum, ... ℥j.

Conscisse conque in ag. commun. ℥x., ad remanentiam, ℥vj.; Colatura addatur Argenti nitrici fusi, ℈j.—℥j.; Acet. Saturn. ℥ij. M. D. S. Embrocatio. With this mixture the sick toe is to be moistened all over, and as much as possible of the liquid dropped into the fissure between the nail and flesh, and then the toe to be bandaged with a strip of linen about one and a half inch wide and eight inches long. After the end coming next to the nail has been saturated thoroughly with the liquid, the balance of the strip is wrapped around the toe. The moistening of the inner end of the strip has to be repeated through the day four, or six, or ten times, and to be continued until a cure is effected. Generally the application causes no particular pain; if, though, there should be much sensitiveness, from six to twelve grains of morphine might be added. Soon after the application of this remedy the swelling of the toe subsides, the excrescences, the proud flesh shrink, get black, as also the whole toe; the nail gets brown, soft, brittle, loses its stiffness, and ceases to press and dig into the flesh; the skin peels off, and out of the matrix a new, well-formed nail will be developed."

The "Throat Distemper" of the Last Century.—In the *Boston Medical and Surgical Journal*, for Nov. 15th, Dr G. H. Gay republishes a paper upon the above subject, written by Jonathan Dickinson, of Elizabethtown, N. J., in the year 1738, and published in Boston in 1740. Dr. Gay intimates that the disease described, and for which directions were given for treatment, was none other than diphtheria. Dr. Dickinson describes no less than six varieties of the disease, and some of the symptoms do conform very accurately to those of the last-named disease. When he says, "The whole throat, and sometimes the roof of the mouth and nostrils, are covered with a cankerous crust, which corrodes the contiguous parts, and frequently terminates in a mortal gangrene, if not by seasonable applications prevented," we recognize a disease resembling diphtheria. Also, when he speaks of the disease as an epidemic, often causing great fatality, with the symptoms of hoarseness, difficult breathing, loss of voice, occasional bubo-like

ulcerations, and the expectoration of large quantities of tough whitish slough (membrane) from the lungs, we also recognize conditions sometimes present in diphtheria. Again, in uniformity with the above, speaking of symptoms, he says, "The tonsils first, and in a little time the whole throat, is covered with a whitish crustula; the tongue is furred and the breath fœtid." But other symptoms are mentioned that show a dissimilarity to diphtheria, as it now manifests itself: thus, he says, "Upon the 2d, 3d, or 4th day, if proper methods are used, the patient is covered with a miliary eruption, in some exactly resembling the measles; in others, more like the scarlet fever, (for which distemper it has frequently been mistaken,) but in others it very much resembles the confluent small-pox."

It may be interesting to notice, in this connection, a remark or two in regard to treatment. As a local means to the throat, he says, "I have found the following method most successful: Take Roman vitriol, *(cupri sulphas,)* let it lie as near the fire as a man can bear his hand, till it be thoroughly calcined and turned white; put about eight grains of this into half a pint of water; lay down the tongue with a spatula, and gently wash off as much of the crust as will easily separate, with a fine rag fastened to the end of a probe, or stick, and wet in this liquor, made warm. This operation should be repeated every three or four hours."

In conclusion, and in a postscript, Dr. Dickinson gives the treatment of a brother practitioner, which is reported to be remarkably successful: it is advised in all forms of the disease. This treatment consists of the administration of "a decoction of the root of the dart weed or squaw-root," prepared in the following manner: "He orders about an ounce of this root to be boiled in a quart of water, to which he adds, when strained, a gill of rum and two ounces of loaf sugar, and boils again to the consumption of one-quarter part. This he gives his patients frequently to drink, and with this, orders them frequently to gargle their throats; allowing no internal medicine but this only, during the whole course of the disease, excepting a purge or two in the conclusion."

Veratrum Viride.—In a former item in this *Summary*, reference has been made to the veratrum viride. The Journals contain more than the usual amount of original suggestions upon this subject, for this month; and we shall here quote a few remarks and ideas, in addition to the foregoing. In the *Medical and Surgical Reporter*, for Nov. 3d, Dr. B. Woodward has an article upon this subject. From an extensive use of the article, he says, "I am led to believe that its sole

action is upon and through the nervous system, and that, unlike antimony, it has no effect upon the blood." He further says, "I regard it as solely a *nervous sedative*, and in no case *a stimulant*."

Dr. Woodward is of the opinion that the veratrum acts the most decidedly upon the pneumo-gastric nerves. In malarial fevers of a high grade of action, he thinks the quinine will be far more effectual if preceded by a few doses of the veratrum, sufficient to reduce the pulse to the normal standard. "In *pneumonia* and *pleurisy*," he says, "it acts by depressing the nervous action, which concentrates the blood on the lungs and pleura." He would also use it in certain cases of typhoid fevers, and in puerperal fever. "Reasoning from the action of the remedy," he says, "on the nervous system, I have determined to try its effects in the first case of *delirium tremens* which shall come to my hands." We have no doubt of its importance in such cases. Dr. Woodward would also recommend the remedy under consideration in some cases of dropsy, and in some of the sequelæ of scarlet fever.

In the *Atlanta Medical and Surgical Journal*, for November, Dr. H. D. Capers reports a case of hydrothorax, cured, as he supposes, mainly by full doses of the veratrum viride; its action was aided by tinct. digitalis, tinct. cimicifuga, jalap and cream of tartar. Before leaving this subject, we would refer to a few remarks by Dr. J. F. Meigs, in the *Med. and Surg. Reporter*, for Nov. 3d, upon delirium tremens, which, being remotely connected with the subject under consideration, may be appropriately referred to here. Dr. Meigs says, that "sudden death in delirium tremens arises from blood coagula in the heart, and that chronic alcoholism, or alcoholic poisoning, has a tendency to lead to coagulation of the blood." He says further, "the excessive use of opium or alcohol in this disease has been found to be injurious." As we have said before, we would say again, reduce the nervous excitement by the administration of antimony and veratrum viride, and small doses of opium, and, when the delirium is past, give tone to the nervous system by the administration of quinine and strychnine.

Opium.—In the *Med. and Surg. Reporter*, for October 20th, 27th, and November 3d, the paper of Dr. G. Hamilton upon the use of opium is reported, and the discussion which it elicited. We have space only to refer to a very few points in the argument. It is the opinion of Dr. Hamilton, that the cerebrum is the part most affected by opium. It is generally conceded that the secretions are diminished under the use of opium; yet there is one exception to this, which we consider of vast practical importance, and we will state it in the language of Dr. Hamilton. "Perspiration is nearly always *increased*

by a moderate or full dose of opium, and this increased activity of the cutaneous exhalents is generally accompanied by an increased action of the heart and arteries, as is shown in such cases by increased color of the surface of the body." Dr. Hamilton considers the various diseases in which opium is appropriate. We have not space for an abstract. We will only instance peritonitis, dysentery, typhoid fever, and various forms of inflammation. In the discussion upon this paper various distinguished physicians took part. We will here refer to only one idea: Prof. Condie, remarking upon this subject in reference to *congestion and inflammation*, says, that *in congestion of the lungs the administration of opium has always a tendency to increase it.* We very much doubt the correctness of this assertion; we believe that opium has a tendency to relieve all internal congestions. We know of no remedy that will so *increase the cutaneous circulation, and produce free perspiration*, as will opium. In congestion of the lungs, a harassing and perpetual cough but increases the congestion. Opium, by allaying this cough, determining the circulation to the superficial blood-vessels, and the free perspiration consequent upon this, can have no other influence than to relieve the internal congestion. Here we leave the subject, referring our readers to the paper of Dr. Hamilton, and the discussion following, as worthy of attentive consideration.

Varicose Veins of the Leg.—In a former number, we referred to the treatment by subcutaneous ligation, as practiced by Dr. R. J. Levis, of Philadelphia. In the *Med. and Surg. Reporter*, for November 17th, Dr. Levis has an article upon this subject. He regards varix of the leg as, practically, a disease of the *saphena vein;* the proper treatment he believes to consist in the obliteration of this vein. The manner of its accomplishment is described in the paper referred to. He thinks the operation is best performed while the patient is standing. To have the limb at a convenient height, he would have him stand upon a chair or table, and so placed that the patient can steady himself against the wall. He prefers a *round, straight needle*, to the curved needle, or to one with the common surgical-needle point. The vein is found, and the needle is inserted perpendicularly, until it reaches the under service of the vein. The shaft is then depressed, the point passed *under* the vein, and passed out on the opposite side. The needle is now made to enter at the orifice of exit, and passing now *above* the vein, emerges at the point of original entrance. It should have been observed that the needle should previously be armed with a silver or iron wire of small size. The wire is now drawn down upon the vein, tightened, and fastened by twisting. Adhesive or isinglass

plaster is now applied over the wounds, and the limb is bandaged from the toes to the knee. Dr. Levis regards this treatment as eminently successful, and accompanied with no danger.

Chronic Bronchitis—A New Remedy in.—In the *Med. and Surg. Reporter*, for November 17th, Dr. H. Wilson has an article upon the treatment of chronic bronchitis. He regards local medication as of the first importance, and considers in review most of the means, the use of which has been recommended in this manner. Suggesting a new remedy, he says, "For several years past I have been in the habit of using a remedy, which may not be new, but which far surpasses that of any other which I have tried in relieving, and in many instances entirely eradicating, the affection. I refer to the leaves of the common mullein, (verbascum thapsus,) dried and smoked in a pipe. In that form of the disease in which there is dryness of the trachea, *with a constant desire to clear the throat*, attended with little expectoration and considerable pain in the part affected, the mullein, smoked through a pipe, acts like a charm and affords instant relief. It seems to act as an anodyne in allaying irritation, while it promotes expectoration and removes that glutinous mucus which gathers in the larynx; and at the same time, by some unknown power, completely changes the character of the disease, and, if persevered in, will produce a radical cure." He says the remedy should be used as indicated above, at least two or three times a day.

Radical Cure of Oblique Inguinal Hernia.—Dr. D. Hayes Agnew has invented new instruments for the radical cure of oblique inguinal hernia. The principle of cure does not differ materially from that put in practice by others: the instruments used may enhance the convenience of the operation. We have not space for a full description. Suffice it to say, that the scrotum is invaginated into the inguinal canal, and is held there, and the canal rendered patent, by an instrument not unlike a bivalve speculum. A long, spear-pointed, curved needle is now armed with a wire, carried up in the groove of the blades, and made to pierce the integuments coming out through the walls of the abdomen. The other end of the wire is now threaded, and the needle is made to pierce again the parts but a short distance from the first insertion. The wire is now drawn down and fastened; the object being to make a plug of integuments filling the inguinal canal. Several stitches are now taken across the canal, in front of the cord, the object of which is to aid the first in retaining the invaginated portion of the scrotum, and thus forming a permanent tegumentary plug, filling the canal, and thus preventing the descent

of the bowel. We condense the above from an article in the *Medical and Surgical Reporter*, for November 17th.

Bearing upon this point, we might remark, that Professor Syme, of Edinburgh, says that all apparatus for this operation is unnecessarily complicated. "A piece of candle," he says, "with a little piece of twine through one end, will answer all purposes."

Belladonna in Sore Throat.—In the *Medical and Surgical Reporter*, for November 10th, Dr. J. W. Thompson has an article upon belladonna. He has used belladonna in inflammation of the breasts with good effect. He dissolves ℈ij. in f℥j. of water, and applies to the inflamed breast. We use the fluid extract without dilution, and it has never disappointed us, when used to prevent inflammation in cases of abortion, or in cases of delivery of still-born children. Neither has it disappointed us in the cure of inflammation of the breast, where suppuration had not already commenced. We have referred to the paper of Dr. Thompson more for the purpose of giving his experience with belladonna in sore throat. He says, "My experience with it in incipient sore throat would lead me to rank it almost as a specific, if used sufficiently early. My plan is to give the sixtieth of a gr. of atropia, and I rely upon it confidently if given within six hours of the first appearance of inflammatory symptoms. I have tried it repeatedly upon myself, as well as others, and yet have to note the first failure." He thinks its beneficial influence is limited to the very early stages of the attack.

Quadruple Birth.—In the *Medical and Surgical Reporter*, for November 24th, Dr. W. L. Atlee reports a case of quadruple birth. Two of the children were girls and two boys. Each child in the uterus was surrounded by a distinct membrane, and each child had its separate liquor amnii. There were three placenta—one larger than the others, to which two cords were attached.

Dyspepsia.—"In cases of dyspepsia, Prof. Pepper is in the habit of using the following carminative mixture with benefit:

R.—Creosote,	gtt. x.	
Sodæ carb.,	℥ ij.	
Tinct. zingiber.,	℥ j.	
Tinct. cardamom.,	℥ j.	
Sacchar. alb.,	℥ ij.	
Aquæ cinnamom.,	℥ vj.	M.

Dose: a table-spoonful three or four times a day."

A New Method of Amputating at the Hip.—In the *American Medical Times*, for November 3d, Dr. H. A. Potter recommends a new method of amputating at the hip-joint. The incisions are made as in the

usual manner of amputating, at the upper third of the thigh, and the arteries tied. Now a free incision is made from the outer angle of the flaps, to and over the trochanter major, the muscles dissected away from the bone, the capsular and round ligaments divided, and the limb removed.

The advantages claimed are, that the danger from hæmorrhage is materially lessened, and a stump is secured "which he can move with force and facility, and to which an artificial limb may be applied." Dr. Potter has twice operated in this manner, and with satisfactory results.

Obstruction of the Lachrymal Duct.—In the *American Medical Times*, for November 17th, Dr. J. E. Macdonald describes a new method of operation. He says, "I have done away entirely with the director, and only employ a blunt-pointed, narrow, and slightly curved bistoury, the blade of which is only about three-quarters of an inch long, the heel about three-sixteenths of an inch broad, and which tapers to a fine blunted point, a very little probe-shaped. It is sharp on its concave edge, cutting to the point, which is very narrow; and to provide for its strength, the back is somewhat stout, and delicately clubbed at its extremity."

Dyspnœa from Cardiac Disease relieved by the Inhalation of Oxygen.—In the *American Medical Times*, for November 17th, Dr. J. C. Acheson reports a case, in which a troublesome dyspnœa was relieved by the inhalation of oxygen. In the case reported, the pulse was imperceptible, with other symptoms corresponding. He says, "Within fifteen minutes after the patient began to inhale the oxygen, signs of relief were apparent. The restlessness ceased; the breathing became much easier; pulse became perceptible at wrist; intelligence began to return; and waking from his lethargy, he complained of the coldness of his body, and desired more clothing." The patient died, but the benefit resulting from the inhalation of oxygen argued better results in more favorable cases. In extreme dyspnœa, in the last stages of consumption, we have resorted to the inhalation of small doses of chloroform, with very decided benefit.

Salts in Dysentery.—In 1855 we first saw the reported experience of Dr. Dorsey with Epsom salts, united with sulphuric acid and morphine, in dysentery. The reputed success was such that we were induced to give the published formula a trial. We have used it ever since, whenever we have had cases of dysentery to treat. Having seen many severe attacks of dysentery yield kindly under its action, in from 24 to 48 hours, cases that under ordinary treatment would

doubtless have been protracted through three or four weeks, we have let no opportunity pass to recommend its use.

In the *Boston Medical and Surgical Journal*, for November 29th, a nameless writer recommends the following formula:

"R.—Glauber's salts, ... ℥j.
Water, ... ℥iij.
Nitric Acid, ...
Muriatic Acid, each . . ℥j.
Alum, ... ʒss. M.
Dose, a large table-spoonful."

This may be a good prescription, but we much doubt its superiority over the one given by Dr. Dorsey; and, certainly, it is far less pleasant of *administration*.

Diphtheria.—In the *Cincinnati Medical and Surgical News*, for November, Prof. T. A. Reamy has an article upon this affection. He says he has treated 250 cases, and remarks, "I will here assert, that, in my humble judgment, any one who will, at the very outset of the attack, administer full doses (3 to 6 grs. to children 3 to 6 years old) of sulph. quinine, and continue its use, in connection with chlorate of potash, and apply nit. silver in solid stick locally, avoiding mercurials in any quantity or form, catharticizing as little as possible, will find such success attending his treatment as will lead him, if he had doubts as to the nature and pathology of the disease, to settled and satisfactory conclusions. In many cases, I deem it better to use nitric acid in connection with the quinine treatment, than chlorate of potash."

Pneumonia.—It is interesting to examine the conflicting statements in regard to the modes of treating pneumonia. In the *Georgia Medical and Surgical Encyclopædia*, for October, Dr. E. W. Shafford has an article upon the treatment of pneumonia, in which the following language occurs: "I have much reason to believe that the lancet, judiciously used, followed up properly with antimonials, mucilages, blisters, &c., not only cut short the disease, but is more likely to secure and hasten convalescence. In this view of the subject, I think I am sustained by abundance of statistical reports." When we were in the habit of treating pneumonia with blood-letting, antimony, calomel, &c., we were quite satisfied to be able to discharge our patient in from three to four weeks. Since we have trusted the same cases to veratrum viride, quinine, opium, &c., it is an exceptional case if we are not able to discharge our patient in from ten days to two weeks.

Placenta Hook.—In the forty-fifth number of the *Scalpel*, Dr. E. H. Dixon describes a new instrument of his own invention, for the removal of the placenta, particularly in cases of abortion. It is made

of bird-cage wire, and is quite simple in its construction. He says, "By a simple turn or two, without any special skill on the part of the operator, it completely sweeps the walls of the womb, without the possibility of injuring them by catching in any irregularity or fold of its delicate lining membrane, and is absolutely certain to embrace all within its grasp by giving it a couple of turns precisely as you would do a gimlet." The instrument is made of double wire, with a loop-like hook at one extremity, and a larger loop to be used as a handle at the other.

An instrument figured in the January number of the MONTHLY for 1857, and its use described in an article by H. G. Carey, of Dayton, Ohio, we have often used for the purpose designated by Dr. Dixon. In cases of emergency, where Carey's instrument is not at hand, any person of ordinary skill can, in a minute or two, make such an instrument as is described by Dr. Dixon, and it will doubtless, in judicious hands, serve well the purpose for which it was designed.

Diphtheria.—In the *Kansas City Medical and Surgical Review*, for November, one of its editors, Dr. T. S. Case, has an article upon diphtheria. We take pleasure in giving the treatment of those who have had experience with the disease, be that treatment what it may. In a *typical* case, Dr. Case's treatment is the following: "During the febrile stage, if there be any indication of an overloaded condition of the stomach and bowels, I give an emeto-cathartic; after the operation of which, I direct the use of full doses of Dover's powder to quiet any nervous excitement, to prevent the too free action of the cathartic, and to encourage perspiration. In addition to this, I prescribe, to be taken until the kidneys are acted upon freely, the following mixture:

R.—Spts. etheris nit., ... ℥ij.
Olei Terebinth., ... ℥ij.
Mucil. gum. Acaciæ, ... ℥vj. M.

Dose for an adult—dessert-spoonful every hour or hour and a half. For a child, this mixture might be rendered more pleasant by the addition of sugar, &c. After the subsidence of the fever, I immediately commence upon the tonic and stimulant treatment, consisting of beef tea, egg-nogg, &c., *ad libitum;* and in addition, quinine, comp. tr. cinchonæ, muriatic acid diluted and sweetened, chloric ether, carbonate of ammonia, chlorate of potash, &c. These various remedies are to be applied, in quantity and time, as indicated by the condition of the pulse and nervous system." Any person who will take the trouble to examine our *Summary* for the last year, will find the therapeutic experience of the most influential in the profession, whether at home or abroad.

MONTHLY SUMMARY OF FOREIGN MEDICAL LITERATURE.

By Dr. L. Elsberg.

1. *Employment of a New Chemical Compound—Arseniate of Gold—against Cancer.* By Dr. Massard. (Revue de Thérapeutique Medico-Chirurgicale, Nov. 1, 1860.)
2. *On the Treatment of Ptyalism and Sore Mouth.* By Prof. Knod von Helmenstreit. (Schmidt's Jahrbücher, December, 1860, p. 399.)
3. *Systematic View of all Parasitic Worms found in the Human Body.* By Dr. Weinland. (Wiegmann's Archiv. XXV., 276–284. Froriep's Notizen, 1860, IV., 11, p. 176.)
4. *On the use of Opium in Mental Derangement.* By Dr. Ludwig Meyer. (Allgemeine Zeitschrift f. Psychiatrie, XVII., 4, 1860.)
5. *On Enlargement of the Thyroid Gland during Pregnancy.* By Prof. Natalis Guillot. (Archives Générales de Médicine, November, 1860.)
6. *Sulphuret of Antimony in the Treatment of Various Diseases of the Heart.* By Dr. Fauconett. (Gazette Médicale de Lyon; Revue de Thérapeutique Medico-Chirurgicale, Oct. 15, 1860.)
7. *On Transfusion of Blood in Puerperal Hæmorrhages.* By Dr. Ed. Martin. (Berlin: August Hirschwald. 1860.)
8. *Oil of Sabine in Gonorrhœal Ophthalmia.* By Dr. Lunda. (Wiener Med. Wochenschrift, November 24th, 1860.)
9. *Means of Preventing Death from Chloroform.* By James Petrie, M.D. (Medical Times and Gazette, December 22, 1860.)
10. *Lectures on the Diagnosis and Treatment of the Principal Forms of Paralysis of the Lower Extremities.* By Dr. C. E. Brown-Sequard. (Lancet, December 22, 1860.)

1. [We doubt not the whole profession of this country will join us in hailing Dr. Massard's contribution to knowledge in regard to the treatment of that terrible and intractable disease, cancer. Quackery, pretension and humbug have so often, however, deluded the world into the temporary belief in some vaunted "cancer cure," that we should be exceedingly careful "to have a reason for the hope that is within us." We should like to give this new chemical compound a fair trial, and wish every physician in the land could and would do the same. *A priori*, we must state that we have long employed the chloride of gold, topically, and the *aurum muriaticum natronatum*, (the chloride of gold and sodium,) internally, in the successful treatment of indurations of the os and cervix uteri, which many physicians would doubtless have pronounced cancer. If the properties and powers of arseniate of gold really *are* what Dr. M. believes them, we would suggest its employment, too, in constitutional syphilis, and other systemic *vices*. His conclusions are, however, as yet not positively decisive enough, and must be confirmed by other observers.

We translate for our readers the main points only.] Arseniate of gold is a new remedial agent. It belongs to the class of *alteratives*. It acts profoundly, finally, and permanently on *nutrition*, modifying it, or impressing not only the organ of this function, by a sort of elective action, but the great organic systems: innervation of the digestive apparatus and of the muscles of the life of relation is increased (nervous system); the morbid secretion of bronchitis concomitant with phthisis and that of tuberculous cavities is lessened; cancerous tumors undergo resolution, i. e., a normal softening; the sanguineous capillaries color the skin with the characteristic color of health (lymphatic system, sanguineous system.)

Arseniate of gold is prepared by shaking together a solution of pure chloride of gold and a solution of arseniate of potash, allowing the mixture to stand for 24 hours, filtering and drying the precipitate. On account of its insolubility in water, arseniate of gold may be given in the solid form. The maximum dose that has as yet been ventured upon, is two centigrammes a day, in two divided doses. The dose ordinarily commenced with, is three to four milligrammes a day. After every two or three days, a milligramme more per day is ordered until the maximum dose is reached, which is then continued for several months. Toxical effects have never yet been observed. The author promises soon to give a complete treatise on the subject.

2. As long ago as 1832, has Prof. Helmenstreit published an article on iodine as a cure for ptyalism and sore mouth. The many failures reported, he ascribes entirely to a departure from his directions, and especially to the employment by many physicians of a mixture of iodide of potassium, instead of iodine alone. He has always recommended one or the other of the following formulæ, viz.:

R.—Iodinii pur., . . . gr. v.
Spts. vini, . . . ʒ ij.
Aq. cinnamomi, . . . ʒ iijss.
Syr. simpl., . . . ʒ ss.
M. S. A table-spoonful four times daily. Or,

R.—Iodinii pur., . . . gr. vj.
Extr. gentian. rubr. . ʒ j.
Mucilag. gum. arab., q. s. ut fiant pil. xxiv.
S. Three pills four times daily. In severe cases, the dose of iodine had better be somewhat increased.

3.—I. *Cestoidea.*—Bothriocephalus latus in the small intestines, Switzerland, Russia, France, almost never in Germany, England, Holland, North America; Tænia solium in the small intestines, Germany, Eng-

land, North America, Italy, France; once found in a Negro, who also had Cysticercus cellulosæ in brain and eye; a Tænia in a Hottentot on the Cape; Tænia mediocanellata in Germany and North America; Cysticercus tenuicollis in the liver; Echinococcus hominis, mostly in liver and pancreas, Iceland, North America; Echinococcus veterinorum seldom; Cysticercus acanthotris in the muscles of a woman in Virginia; Tænia nana in an Egyptian; Hymenolepis flavo-punctata in a child in Massachusetts. II. *Trematoda.*—Monostoma lentis once in Berlin, in the lens; Distoma hepaticum in the gall-bladder; Dicrocœlium lanceolatum; D. heterophyses in the intestines of Egyptians; D. oculi humani once in the eye of a child; D. Buskii in the intestinal canal, in London; Schistosoma hæmatobium frequently in Egypt, in the veins of the liver; Hexathyridium pinguicola once in Germany; H. venarum once in Germany and Sicily; Tetrastomum venale in Sicily. III. *Nematoidea.*—Ascaris lumbricoides common with Europeans, North Americans, Egyptians, and Ethiopians; A. alata in small intestines in Ireland; Oxyuris vermiculata common in the rectum in Europe, Egypt, North America; Strongylus gigas, seldom, in the kidneys; Str. longevaginatus once in Siebenbürgen, [an Austrian province;] Ancylostoma duodenale in the duodenum, in Italy and Egypt; Trichocephalus dispar in the cœcum and colon, in Germany, Africa, North America; Trichina spiralis in the muscles, in Europe, North America; Spiroptera hominis in the bladder; Filaria medinensis, in Africa; F. oculi humani, in Germany; F. hominis bronchialis, in Germany. Altogether, therefore, 32 species.

4. Dr. Meyer's article is very able, elaborate, and practically valuable. He has come to the conclusion that opium is useful in puerperal mania, in hysterical alienation, in all forms of insanity which are connected with the sexual organs; and in those which appear in the course of certain acute diseases, as variola, acute rheumatism, etc. He recommends doses of two to three grains of opium every two hours, and in cases where the internal administration of the remedy is not advisable, the injection of a solution of morphia into the cellular tissue, viz., the "hypodermic method."

5. M. Guillot observes that he has not infrequently remarked hypertrophy of the thyroid taking place in pregnancy, and quite independently of the conditions usually considered to be favorable to the production of goître. The affection is usually not dangerous, but two cases which have come under the author's notice prove that it may prove perilous to life itself.

(1.) A lady, 30 years of age, in easy circumstances, and of excellent

health and constitution, found her neck, during a first pregnancy, become the seat of a slowly increasing enlargement; but as she suffered little inconvenience from it, she paid but little attention to it. During a second pregnancy, in 1855, the tumor increased again, and became troublesome. After suckling had ceased, and the menses had returned regularly, the tumor continued its increase, giving rise to much pain, facial neuralgia, palpitations, vertigo, and suffocative asthmatic paroxysms. The author saw her, with M. Trousseau, in 1858, when the tumor, of about two decimètres in diameter in all directions, was found to be indistinctly divided into two lobes, its consistency being that of a lipoma, without irregularities, and the skin covering it being healthy. On compressing it, great embarrassment of respiration was produced. A few days after the consultation, the patient having become nearly asphyxiated during an attack of dyspnœa, laryngotomy was performed, with immediate relief. The patient, however, died two days afterwards, and no autopsy was permitted.

(2.) A young woman, aged 29, of good health and constitution, had perceived after her first pregnancy, four years ago, that her neck became larger, but she paid little attention to it. She was delivered of her second child nineteen months since. At the anterior part of the neck was a voluminous tumor of about thirty centimètres in circumference, extending from the thyroid cartilage to the sternum, and covered by healthy and moveable skin. Her respiration and voice were embarrassed, and she was liable to suffocative paroxysms. All these symptoms gradually came on from the time of the first pregnancy, undergoing especially increase from that of her second. After she had been a week in the Necker Hospital the paroxysms of dyspnœa became more and more urgent, until at last one terminated fatally. The thyroid had nearly acquired the size of a human brain, and of course exerted great pressure on surrounding parts. The tissue of the gland, healthy in appearance, still was remarkable in various particulars. In the normal state, the frame-work of the thyroid consists of a fibrous tissue but of slight density, constituting a multiplied series of little cellules lined by a very delicate epithelium. Within these cellules is contained an alkaline, albuminous liquid, in which are swimming vesicular globules, and well-rounded cells or molecules with or without nuclei. But the consistency of this tumor was more firm than normal, on account of its abundant fibrous tissue forming large, thick, multiple partitions, this density being still not so great as that of ordinary fibrous tissue. Its intimate structure resembled that of normal fibrous tissue. The little cavities or cellules were increased in size at some

points to three centimètres, and at others to two or three millimètres. The minuter cellules possessed an epithelial covering, but the larger cavities did not. Beyond the increased volume produced by the excessive accumulation of the elements of the thyroid, all was in its normal state, with the exception of the absence of epithelium in the enlarged cellules. The lesion is therefore a hypertrophy of the fibrous and granular elements constituting the organ.

Supposing this to be a correct representation of what takes place in other cases of enlargement of the thyroid during pregnancy, the author is disposed to regard it as only one of the manifestations of the excessive production of fibrine during pregnancy. To this is in great part due the progressive development of the uterus and mammary glands. The frame-work, with each of its proper elements, exists in the latter for example; but in insufficient quantity, and for the secretion of milk to become accomplished, it is necessary that these anatomical elements should be increased, such secretion not taking place from the mere afflux of blood, but in proportion to the new mass of additional organic elements. These are the utricles or terminal cells of the galactigenous canals, and the fibrous tissue serving as a support, and common bond of union for all these utricles. Just as we can appreciate the incessant increase and accumulation of the galactigenous vesicles, we can estimate that of the generative nuclei of the fibrous tissue, until the fibrous network of the organ comes to occupy a considerable and highly important position in the constitution of the organ. Other signs of increased production of fibrine are found in the accidental osseous growths, accompanied by a thickened periosteum, which are found sometimes within the cranium or pelvis of pregnant women. Without adverting to the demand for such tissue in building up the fœtus and its membranes, we may refer to its prevalence in the development of the round ligament. "Being in the habit of endeavoring to trace out the mutual relations of pathological phenomena, and being convinced that most of the facts of detail are but the expression of a unity which the practitioner should seek to discover, I have endeavored to bring these particularities together, which, perhaps, after all, though produced simultaneously, may not be united by any appreciable tie. However, this simultaneity of production, amidst a common general condition, has struck me; and this is why, although with much reserve, I have been led to state that the hypertrophy of the thyroid body, during pregnancy, is one of the consequences, as it is one of the proofs, of the energy imparted to the fibrous elements of the system."

6. [Many of our readers may know that sulphuret of antimony was a favorite remedy formerly, against gout, rheumatism, scrofulosis and chronic exanthemata. It has also been used in epilepsy, and as a febrifuge; in the former, and as an alterative in skin diseases, we remember to have used it in two or three grain doses, three times daily, long ago. We have never been able to derive, as far as we know, the slightest benefit from it. Dr. F. in the following article has not stated the dose he used. The dose stated in the books is from two to twenty grains. It should be borne in mind that it is never free from arsenic.] I suffered, says Dr. Fauconnet, since my eighteenth year from disease of the heart. Violent exertion had been the cause, and all sorts of excitement, so natural at that age, kept up the disease. During fifteen years following, I tried, without improvement, bloodletting, leeches, baths, digitalis, water as exclusive beverage, moderated diet, etc., etc., etc. At the age of 24 years, I was attacked with intermittent fever, for which I employed every remedy I could get knowledge of; in spite of which, gastric pains, added to the recurring marsh fever, rendered existence burdensome. More than twenty-five years after, notwithstanding my removal from the place of contamination, I still had occasional gastralgia and attacks of fever, while the cardiac affection was unchanged. At the age of 50 years, and against these obstinate febrile paroxysms, I resolved to employ sulphuret of antimony, and before long I experienced most happy results from its use. What I had most feared, aggravation of the gastralgia, did not take place; on the contrary it lessened. The fever soon moderated, afterwards ceased, not to return. The pains at the heart, palpitation, etc., lessened; and after two months' employment of the remedy, I find myself in a far more satisfactory state of health than I have once enjoyed in thirty years.

Dr. F. then reports the history of a case of neurosis of the heart, of another of rheumatic endocarditis and hydropericarditis, and of a third case of rheumatic affection of the heart, with sanguineous concretions of recent formation, all three of which were cured with sulphuret of antimony.

7. We regard Dr. Martin's the most complete monograph on the subject ever published. Right gladly do we take the trouble to present our readers with an analysis of the most striking points. In September, 1825, James Blundell performed the first successful operation of transfusion on a woman dying from postpartum hemorrhage. Since then, transfusion has been performed fifty-seven times in obstetrical practice, with forty-five recoveries, under circumstances in which

the most experienced physicians could not but pronounce death inevitably at hand; while even, in most of the remaining twelve cases, the fatal issue was brought about by diseases and occurrences which had no connection whatever with the operation. Whether the transfused blood acts by *restitution*, as absolutely supplying the lost blood, or by *stimulation* of the walls of the vessels, and especially the heart, so that its activity is prolonged until the lost quantity of blood is otherwise reproduced, has been the subject of much contention. The truth seems to be, that the two *modi operandi* co-exist—the latter, *i. e.*, the stimulation, being the most important. It has also been proved that the corpuscles of the blood are the proper restorators, while the serum assists their action very much.

The dangers of transfusion have been greatly exaggerated. That death results from injecting blood corpuscles of a different form or size than those in the species to which the subject of the operation belongs, needs no consideration here, since only human blood is to be transfused in exsanguious puerpera. Altogether, faulty methods of operating, selecting the blood of greatly excited or otherwise abnormally affected individuals, &c., must also here be excluded. Even the danger of entrance of air into the vessels can be suspected in but a single case out of the fifty-seven; and in this case, transfusion was practiced by opening the *jugular* vein; while when choosing the proper vessels, (the cutaneous veins of the arm,) with the proper precautions, the danger of its occurrence must be regarded as very small—owing, perhaps, to the entrance of an amount of air insufficient to produce dangerous symptoms, or perhaps to its entrance being so gradual, and its mixing with the blood so intimate, before reaching the heart, as not materially to interfere with normal circulation. The possibility of coagulation of the blood, with the dangerous consequences of thrombosis and emboly, has not in practice proved as likely to occur as it was ever feared; and the danger of inflammation of the vein at the place of injection, though it has occurred, (as phlebitis has, however, also occurred after simple venesection,) is, as all the other dangerous consequences of transfusion, *insignificant* compared with its value in saving the life of the exsanguinated.

As to the indications in obstetrical practice:

"*Whenever, with the presence of symptoms of great exsanguination*—general pallor of the skin, cold extremities, small, almost imperceptible pulse, attacks of fainting—*restoration through the alimentary canal is rendered impossible*, by vomiting up of the remedial and nutritive substances, by inability of swallowing, by severe gastric catarrh, &c., *the*

time has come for transfusion, and I advise not at all to delay this almost dangerless operation." The continuance of flooding—provided nothing else is neglected to stop it—*is no contra-indication, but rather the reverse.*

For the performance of transfusion Dr. Martin recommends—besides a lancet or bistouri for the incision in the skin, and a glass syringe, seven inches long, amply holding two ounces—a slightly curved trocar, four and a half inches long, (three of which is handle,) the end of the silver canula, receiving the point of the syringe, being funnel shaped, and covered with a thin plate of caoutchouc. "Having determined on the operation, choose a strong, healthy and willing man, or in the absence of such, a healthy, resolute, not frightened or depressed female, from whom to abstract the blood, and one or more intelligent assistants. Having procured a basin with clear, warm water, of 100° to 104° F., and a smooth porcelain cup, to catch the blood, fill the glass syringe, as well as the cup, with warm water, or immerse the latter in the basin. Then, during the same time that you lay bare the median, or if that should appear too small, the cephalic or basilic vein, by means of a cutaneous incision, one to one a half inch long, and introduce the trocar half an inch, in the direction towards the heart, into the vein, (which may to this end be raised a little by means of a couple of threads drawn underneath)—let an assistant perform venesection on the arm of the individual whose blood is to be transfused. Now, while the blood is running into the emptied cup, which may still be allowed to float in the basin, empty also the syringe of the warm water, and at once take up the fresh blood from the cup, being careful to see that the blood in the glass is liquid, and not frothy. Without hesitancy, place the point of the filled syringe in the funnel-shaped caoutchouc-covered opening in the trocar canula, which is fixedly held in the vein by a reliable assistant, after removing the stilet, and slowly push the piston inwards. After removal of the syringe, be sure to cleanse it immediately with warm water, unless you think it advisable to refill it at once with the still flowing blood, and to repeat the injection immediately. Examination of the pulse and heart, and observation of the features, assures us of our success. Should this not yet be complete, the whole procedure is to be repeated, after taking care to have no coagula in the syringe or in the canula. Since it is not always easy to find the median vein, it being collapsed in the exsanguious, it may sometimes become necessary to look for it on both arms; and it has occurred, and without injurious consequences, that transfusion was performed first on one arm and then on the other.

"Having transfused the necessary quantity of blood, the canula is removed from the vein, and the wound dressed, just as after common venesection. It is, of course, understood that the greatest attention must, for some days, be bestowed upon this little wound; that the first symptoms of inflammation must be met with cold applications of lead water, or snow, ice, &c., &c., and that, altogether, the patient must be carefully watched in every particular."

The valuable work before us concludes with the lithographed representation of the trocar (natural size). The following is the systematic division of the matter we have just briefly analyzed:

I. Historical observations on transfusion in general and transfusion in exsanguious puerpera in particular. II. A case of successful performance of transfusion. This is the relation of the very interesting case which led to the preparation of the monograph. We gather that it was performed by the author at Jena, on the 23d of February, 1857, on account of flooding in consequence of placenta previa in a primapara, æt. twenty years; the symptoms being—extreme general pallor, coldness of extremities, pulse hardly perceptible, and persistent gastric catarrh preventing restoration by internal remedies. Four to five ounces of blood, from the left median vein of a strong young man, were transfused into the left median vein of the patient. III. Tabular view of the known cases of transfusion in obstetrical practice. IV. On the action, or *modus operandi*, of transfusion. V. On the dangers of transfusion. VI. On the indications of transfusion in obstetrical practice. VII. On the performance of transfusion.

In conclusion, the author expresses the hope—which we sincerely trust and feel convinced will be richly realized—that his essay may be instrumental in saving the lives of some of the many women who, in the bloom of their years, are brought to the verge of the grave by hæmorrhage, and now so often perish!

8. Confirmed by sixteen cases, Dr. Lunda strongly recommends the application of the oil of sabine to the conjunctival surface of the upper eyelid, as the best means of removing the diseased condition of this part resulting from gonorrhœal ophthalmia, the acute inflammation having subsided. It causes great smarting and hyperæmia, but these soon pass off, and the rapidity of the cure obtained is very great.

9. Ascribing the death from chloroform, during surgical operations, most frequently to the position of the patient, "which is most generally prone with the face turned upwards, and in consequence of which, when the insensibility is complete, and irritability no longer exists, the tongue by its own weight falls back, carries the epiglottis close down

on the top of the windpipe, and so closes the glottis, when inspiration ceases, and asphyxia is the result in a very short time." Dr. Petrie insists on such a lateral or other position of the head, that the tongue be prevented from falling back so as to impede respiration. It may become necessary to draw out the tongue, when sunk already deeply into the fauces.

10. In the last number of the *Lancet*, Dr. Brown-Séquard's most valuable course of lectures is concluded. We have space here to report only the general conclusions, viz.: "Our principal object in these lectures has been to show—

(1) That there is a form of paralysis of the lower limbs entirely distinct from all others, as proved by its mode of production, by morbid anatomy, by its symptoms, and by the influence of a certain mode of treatment, and that this form of paralysis fully deserves the name of reflex paraplegia.

(2) That the reflex paraplegia may be caused by the most various irritations of the skin, the mucous and serous membranes, the abdominal or thoracic viscera, as well as of the genital organs or the trunks of the spinal nerves.

(3) That most cases of paraplegia can be placed in two groups, entirely different one from the other, according to the existence or the absence of symptoms of irritation of the motor, sensitive, and vaso-motor nerve-fibres.

(4) That most of the therapeutical means to be employed in paraplegia are also to be grouped in two categories, one of which is fitted to those cases in which there are symptoms of irritation, and the other, to those cases in which these symptoms do not exist."

REVIEWS AND BIBLIOGRAPHY.

On Obscure Diseases of the Brain and Disorders of the Mind: their Incipient Symptoms, Pathology, Diagnosis, Treatment, and Prophylaxis. By FORBES WINSLOW, M.D., D.C.L., Oxon, &c. Philadelphia: Blanchard & Lea. 1860.

This work is an attempt on the part of its distinguished author to elucidate some of the obscurities surrounding cerebral diseases, especially in their inception and development. The prayer for light in this direction is universal with the profession, and any answering book bearing this blessing on its leaves, will be most acceptably received.

The diseases and structural changes of the brain, like those affecting other organs of the body, are, in a majority of cases, marked by premonitory symptoms that are appreciable and of diagnostic value. We may not always be able to ascertain the precise pathological change in progress, or even its locality, but the author thinks the general questions—whether the brain itself is the seat of the disease, and whether such disease be sympathetic or idiopathic in its nature—capable of an early solution.

Results of great practical value would, of course, follow the prompt recognition and early treatment of these affections of the brain, not less in the avoidance of many of their suddenly fatal terminations, than in the prevention of a vast amount of chronic and incurable insanity.

In the present work, the author contents himself with a general description of the character of their symptoms as respectively manifested by the intelligence, by the functions of motion and sensation, by the special senses, by sleep and dreaming, and by the functions of organic and nutritive life. In a final chapter, he discusses the general principles of the pathology of the brain, and of the treatment and prophylaxis of its diseases and disorders.

Viewed merely as introductory to subsequent treatises in which the symptoms here generally considered will be especially referred to specific types of cerebral disease, and their value as diagnostic elements, so far as possible assigned them, the present volume is entitled to its certain position and share of praise. It would be regarded differently, however, did it come to us as a distinct and systematic work upon the subject of which it treats.

Strictly speaking, it is not of this latter character; and the student, anxious as well for the manner of his advance towards knowledge as for the knowledge itself, will not be pleased with its loose arrangement, its repetitions, its discursive character, and that so little really available remains to him after its perusal. While, with the general reader, he will be interested in the remarkable cases so dramatically told in its pages, he may perhaps question whether the curious and extraordinary in cerebral any more than other glandular diseases, are the most profitable for study or illustration.

There is also a seeming disposition towards sensational effects in the headings of the several chapters, and a kind of rhetorical fullness about their contents, which, however natural to the author's style, disturbs any quiet estimate of their scientific value. Hence, we can conceive how much more attractive this work will be to the popular many than to the professing few of psychological medicine. We feel certain, more-

over, that the mystery so commonly associated with affections of the brain, and the exclusiveness that tends to remove them from pathological or therapeutical fellowship with other diseases of the body, will suffer from the teachings of our author no peculiar abatement. In making these remarks, we do not deny that the work contains much that is valuable, practical, and suggestive of attainable progress in the diagnosis and treatment of these affections; but we find it badly arranged, and overlaid with much irrelevant matter. It seems, indeed, as if the book had been constructed not logically *out of* its subject, but had been written *up to* and around one or two nuclei chapters previously on hand, and eked out by a general chapter on the pathology, treatment and prophylaxis of cerebral disease. In no other way can we account for its patchworky character.

The final chapter contains, as we have said, some general observations on the principles of treatment. We abstract a few of these, not indeed as being novel or different from those generally accepted by the profession at the present day, but simply that our notice, like the author's book, may have a sort of practical conclusion.

In acute affections of the brain and mind, the life and cure of the patient depend upon the speedy detection of incipient symptoms, accuracy of diagnosis, and immediate application of remedial measures. The condition of the general health of the patient must be carefully considered, and any local cause for the cerebral disorder looked after. In violent maniacal excitement, leeches, cold to the head, prolonged hot baths, and careful administration of antimonials and purgatives are preferred to active depletion.

In cases clearly associated with depressed vital powers, morphia with iron and quinine are indicated. The separation of the patient from his friends and family, and the exercise by the patient himself of his own power of self-control over his own delusions or insane thoughts, are often of great advantage in the incipient stage of disordered mind.

The author believes much may be effected by means of early treatment to arrest the progress of organic cerebral disease. The abstraction of small quantities of blood from the head, mercurial alteratives, attention to the state of the secretions, skin and renal functions, combined with counter-irritation and abstinence from all mental agitation and anxiety, are often found, at this stage, of essential benefit. Certain other types of incipient apoplexy and paralysis are only to be treated by means of tonics and stimulants, perseveringly continued, together with the use of setons or issues. In some of these cases con-

nected with organic or functional disease of the heart, after the head symptoms have been relieved by the local measures alluded to, great benefits may result from a combined use of opium, digitalis, and iodide of potassium.

The author thinks a vast amount of organic cerebral disease and mental disorder may be traced to mechanical injuries or blows upon the head, previously received and perhaps neglected at the time. Hence all such cases should be vigilantly watched, and their cerebral symptoms anticipated by timely remedial measures. These measures consist in local abstraction of blood, by means of leeches applied over, or in the immediate neighborhood of the seat of the injury; and in some cases of severe cranial injury, a seton should be applied to the nape of the neck and issues in the scalp.

Impairment of the attention, resulting from a morbid condition of cerebral health, is often benefited by a stimulating plan of treatment with tonics.

Impairment of the intelligence, with active head symptoms indicating the existence of capillary congestion, is to be treated by judicious local depletion and counter-irritation. Oftentimes, in these cases, strychnine is indicated, as well as the different preparations of arsenic, iron and copper. The author is of the opinion that the therapeutical value of arsenic and copper is not sufficiently appreciated in affections of the brain and nervous system, particularly if associated with states of vital depression.

Impairment of the memory, when the result of acute disease of the brain, can only be benefited by a course of treatment which has reference to the cause upon which it depends. In exhausted conditions of the nerve and vital force, stimulants occasionally are beneficial to revivify the power, while in less acute conditions judicious attempts to restore it by proper exercise may be found advantageous.

The moral treatment of incipient types of insanity is reserved for fuller and more detailed exposition in that subsequent volume so constantly referred to as soon to follow, and supply, as we hope, whatever has been too cursorily or generally treated in this.

In the mean time, let us find for the present volume a sufficient merit in the fact that it stirs up the attention of the profession to a closer watchfulness of the first premonitory symptoms of cerebral diseases, and will thus lead to an earlier and more effective treatment of them than now prevails.

Compendium of Human Histology. By C. MOREL, Professor Agrégé à la Faculté de Medecine de Strasbourg. Illustrated by 28 Plates. Translated and edited by W. H. VAN BUREN, M.D., Professor of General and Descriptive Anatomy in the University of New York, &c. New York: Baillière Brothers. 1861.

This work of M. Morel, which has been presented to the American student by Prof. Van Buren, has received the unqualified approbation of the French press. It is a concise *exposé* of the present condition of histology, the author not proposing to give an original work, but rather one that would include within its pages a brief and explicit outline of the various facts which recent researches had established.

Within the 200 pages which comprise the book are given, in separate chapters, short histories of the following subjects, in terse yet clear descriptions: 1. Cells and Epithelial Membranes; 2. Fibres—Connecting Tissue; 3. Cartilage—Bone—Teeth; 4. Muscular Tissue; 5. Elements of Nervous Tissue; 6. Vessels—Arteries—Veins—Capillaries and Lymphatics; 7. Glands; 8. Skin and its Appendages; 9. Intestinal Mucous Membrane; 10. Organs of Sense.

The title "Connecting Tissue" is used in this work as a synonym of cellular, areolar, or filamentous tissue, and is thus described by the author: "The essential elements of connecting tissue are fibres and cells. Its fibres are of two kinds, viz.: connective fibres properly so called, and elastic fibres. Its cells are diminutive in size, generally branched, but somewhat fusiform, and have received from Virchow the name of *plasmatic* cells."

The author adopts in this work many of the views of M. Virchow announced several years ago in his lectures at Wurzburg, and more recently in his work on "Cellular Pathology;" and it is in this chapter on Connecting Tissue that these views are more particularly made manifest. In the chapter on Cells, the author says: "Every cell must derive its origin from another previously existing cell;" and in his description of the development of connecting tissue he holds the following language: "The fibres of connecting tissue develop themselves from cells of the simplest form, which commence the process by assuming the elongated shape, then join each other—end to end—and gradually break up into fibres within; so that each row of cells, thus attached by their extremities, is developed into a bundle of connective fibres. Whilst the majority of the original cells are thus transforming themselves into connective fibres, others assume a star-shape, sending out branching processes, which, joining themselves to similar

prolongations from neighboring cells, produce, after the disappearance of their nuclei, elastic fibres. The cells heretofore called 'plasmatic' are nothing more than the star-shaped corpuscles just described, before taking on their final transformation into elastic fibres."

The cellular origin of all the tissues are in their turn explained in few words, yet quite sufficient to give the student a clear idea of the philosophy which dominates the whole book.

Twenty-eight carefully executed plates at the close, with numerous references in the text, materially aid the reader in understanding the new theories here advocated, without compelling him to have recourse to the microscope, unless to substantiate the faithfulness of the designs.

The labor of translation has been most admirably performed, notwithstanding the difficulty of transferring the close didactic language of the original into another tongue. There is hardly an instance in which the fact of its being a translation would be detected by the reader, where he ignorant of the fact.

We think the editor has done a service to the profession of the country in preparing this book, and we have no doubt it will increase the interest in histological science, which is now so earnestly pursued in Europe, and so little regarded here.

A translation of the work of M. Virchow, alluded to in this notice, is now in press in this city. The present volume is making the road easy for a better knowledge of the peculiar views of the distinguished professor of the University of Berlin upon the cellular origin of the tissues, which is now attracting so much attention and so much discussion among the histologists of Europe.

Lehrbuch der Augenheilkunde, von Dr. Josef Pilz, K.K.A.O. Professor der Augenheilkunde an der Prager Universität und Königlich Böhmisch-Ständischem Augenarzte. Mit 267 schwarzen und 137 colorirten Abbildungen. Prag, 1860. Verlag von Karl André.

(A text-book on Ophthalmic Medicine and Surgery, by Dr. Joseph Pilz. Prague: Karl André, 1860.)

This celebrated work is now completed. Parts VIII.–X. have just reached us, bringing the finished book up to 1024 pages. Since our first acquaintance with it, (made in Europe a couple of years ago,) we have anxiously looked for both its completion and translation into English. That it is the best—nay, the *only real*—text-book extant

on the subject, no one can deny; but it must so much more be regretted that its distinguished author (who, during its publication, was made Professor Extraordinary of Ophthalmology at the Prague University,—"aided by his many years' observation and experience, familiar with the literature of the subject, far from any polemic tendency, ever mindful of the motto 'suum cuique,' able to test and appreciate the results obtained by others without prejudice"—should have taken no notice of the progress of his favorite branch in this country. This omission has caused in some places, more especially in the "Operative Part," defects, some of them serious, which, in view of the author's high position, and the freedom of interchange of the German with the American and English press, are inexcusable.

The work is divided into three parts, viz.:

I. The *Propædeutical*, subdivided into two sections, of which the first presents not only the anatomy and physiology of the eye, and the physical laws of sight, but also a view of the progress of the physiological and physical sciences in relation to ophthalmology: Chap. 1st, descriptive anatomy and histology; 2nd, physiology of seeing; 3d, the hemostatic relations of the eyeball; 4th, physiology of the eyelids and of the lachrymal apparatus; 5th, the laws of development of the human eye, (the second section presenting clearly and in detail the rules and aids for examining the diseased eye.) Very numerous woodcuts in the text, and colored lithographs and steel engravings on extra plates, fully illustrate every subject.

II. The *Pathological-therapeutical*, embracing the description, representation (by splendid colored original drawings, perfectly true to nature in every respect) and treatment of the diseases of the eye, with special regard to differential diagnosis, pathological anatomy, and ophthalmoscopic observation. Diagnosis is advanced by a critical appreciation of symptoms; and teaching, with but few exceptions, the corresponding most important methods of treatment, as based upon observation and experience, rationally scientific, and free from all empiricism, the author's therapeutics generally satisfy the claims of rational physiology and pathology.

III. The *Operative*, most graphically describing the methods of the best European surgeons, with the illustrations reduced to one-third the natural size.

There is no other book from which the general practitioner or the young physician can so surely reach the "stand-point" of ophthalmology, or follow its rapid strides of progress up to the present time. The same difficulty which we at first and long experienced has un-

doubtedly been felt by all. "How shall we, after only our general medical education, master the knowledge of the physical sciences now necessary to understand the acquisitions in ophthalmoscopy? How much time must we sacrifice to a repetetive and special study of physiology to become able to appreciate and apply the useful in ophthalmic pathology and practice? How shall we obtain the results of pathological anatomy and microscopy valuable for ophthalmic diagnosis and therapeutics?" We are blessed here with a special and most excellent school for ophthalmology; but spite of the republication of the works of Mackenzie, T. Wharton Jones, Lawrence, Walton, Dixon, &c., we have no text-book entirely to answer its ends. The questions proposed are satisfactorily solved, *truly* solved, in the work now before us. It is distinguished from all similar books, not only by its text, but by the absolute faithfulness to nature of its pictorial representations. We see the appearances as we do in reality, in practice, in the largest possible ophthalmic hospital, and can view and study them at our leisure.

No more acceptable service could be done a large portion of the profession of this country, than by the publication of "Pilz on Ophthalmology," *edited*—not merely translated—by a competent American ophthalmologist. L. E.

Clinical Lectures on the Diseases of Women and Children. By Gunning S. Bedford, A.M., M.D, Professor of Obstetrics, the Diseases of Women and Children and Clinical Midwifery, in the University of New York. Sixth Edition, carefully revised and enlarged. New York: S. S. & W. Wood. 1860.

These lectures of Professor Bedford are so well known, that it is not necessary for us to enter into any detailed analysis of them in order to inform our readers of their contents.

Within a very few years the work has passed through six editions, and within the last year has received the honor of being translated into French by M. Paul Gentil.

The colloqual style in which the lectures are written, and which has been variously regarded by critics, would seem to be the natural attendant of the time and place of delivery. Taken down originally by some of the audience, and appearing in a medical journal, in the exact phraseology in which they were uttered, they here reappear in book form with all the peculiarities of style incident to a clinical lecture. Doubtless the author could have modified this in revising the

lectures preparatory to publication in a volume. In doing so, however, the character of the volume would have been changed; it could no longer have been called clinical lectures, but rather a treatise.

After all, style in writing, when rules of syntax are not violated, is a matter of taste. The lectures before us are open to the criticism which taste might dictate, yet they contain so much that is useful, that eccentricities in the former may be excused in the abundance of practical suggestions found upon almost every page.

The volume contains thirty-one lectures, upon a great variety of subjects, without order or natural arrangement, the cases reported being those which appeared at the clinic of the University Medical College held by the Professor of Obstetrics, as they presented themselves.

It closes with several pages of select formulæ of remedies, and a copious index to the subjects treated upon in the text.

EDITORIAL AND MISCELLANEOUS.

— *Le Roi est mort—Vive le Roi.*—The labors of one year are closed, those of a new year are begun. We are happy to renew our congratulations at this season to all those who have for a series of years sustained us in our journalistic venture, and to those we meet for the first time upon the anniversary of a new year we give greeting.

The past year was an eventful one. Progress the watchword on every side. Our profession has in no wise been an exception. The researches of the anatomist, the physiologist, the pathologist, have been renewed day by day, and all directed to a better understanding of the laws of life, and a more thorough elucidation of the phenomena of disease.

We have endeavored to keep apace with the result of these researches, and to present the readers of the MONTHLY as complete a resumé of the progress made in our profession as our own pages would admit. We shall continue to act as faithfully as we can in preparing a monthly record of the most prominent advances made by laborers in all branches of the profession throughout the world, giving a large share of attention to the practical works of our own countrymen.

Many improvements we hope to make during the present year, in

the journal. We point to our past labors as an earnest for the future, and call upon our friends for aid in carrying our plans into successful execution.

— Soon the Winter Sessions of the Medical Colleges will close, and students will be searching for instruction during the spring and summer months. We would call their attention to the announcement of the Long Island College Hospital, which will begin its session on the 18th of Febuary, and continue till the middle of July. During the preliminary course, lectures will be given on the following subjects: *On Military Surgery*, by Prof. HAMILTON; *Light*, by Prof. DOREMUS; *The Operative Surgery of the Eye*, by Prof. HUTCHISON; *Unity of Type in the Vertebrate Animals*, by Prof. ENOS; and *The Physiology of Plants and Pharmacy, in relation to Therapeutics and Materia Medica*, by Prof. CHAPMAN.

The advantage of clinical lectures by the bedside is afforded in this institution through the wards of the hospital connected therewith. Attendance upon the hospitals and other public medical charities of New York can easily be continued during the session. The student can therefore, while attending lectures in this institution, pursue without interruption a thorough academic and clinical course, which no other college holding its sessions at the same time can afford. Most of the Faculty are already known to fame as medical teachers of superior attainments and long experience. The advantages they offer the student should induce many, as we hope may be the fact, to continue their summer studies, or to commence their medical course in this institution.

— At the last meeting of the N. Y. Academy of Medicine, Dr. James Anderson was elected President, and Dr. Alfred C. Post, Vice President.

— Dr. B. F. Barker presented to the N. Y. Academy of Medicine, at its meeting, Nov. 21, three new deodorizing agents, which he recommended for their cheapness and efficacy. The formulas for their preparation he gave as they had been sent to him by Dr. Skinner, of Liverpool, England, whose suggestion they were.

The first was composed of calcined oyster shells, fifteen ounces; oil of tar, sixty-four grains. When used, it should be intimately mixed with two to four teaspoonsful of the finest dry bran.

The second was made of prepared chalk, fifteen ounces; caustic lime, one ounce; oil of tar, sixty-four grains; which may be sprinkled upon the discharges in the chambers, so as to correct their unpleasant odor.

The other preparation was composed of tr. camphor and tr. myrrh,

each three drachms; soap liniment, two drachms; acetic acid, twenty minims; oil of tar, q. s. This liquid preparation can be used as an injection, applied upon dressings to offensive surfaces, as cancer of the womb, &c.

— *Citric Acid in Acute Rheumatism.*—Dr. Hartung, of Aix-la-Chapelle, is very enthusiastic on the employment of citric acid in the treatment of acute rheumatism, since he does not hesitate to place it above all other remedies used for the treatment of this disease. He prescribes 6 grammes (94 grains) in 150 grammes (about 5 ounces) of water, with two or three ounces of syrup, and orders a teaspoonsful of this solution to be taken every hour, night and day.

— *Reduction of Dislocations with the Aid of the Local Application of Chloroform.*—M. Orliac attributes to the employment of chloroform, applied by means of compresses over the muscles concerned in resisting reduction, the great facility he experienced in overcoming the difficulty he had met when using the ordinary means. He reports several cases of success. In two cases, the quantity of chloroform employed was from 10 to 12 grammes.

— The review of Leidy's Anatomy, prepared for this number, has been crowded out. It will appear next month.

Books and Pamphlets Received.

Statistical Report of the Sickness and Mortality of the Army of the United States, from Jan. 1855 to Jan. 1860. Prepared by R. H. Coolidge, M.D., Washington: 1860.

On Diseases Peculiar to Women, including Displacements of the Uterus. By Hugh L. Hodge, M.D., &c., Philadelphia: Blanchard & Lea. 1860.

Lives of Eminent American Physicians and Surgeons of the Nineteenth Century. Edited by S. D. Gross, M.D., &c., Philadelphia: Lindsay & Blakiston. 1860.

Clinical Lectures on the Diseases of Women and Children. By Gunning S. Bedford, M.D., &c., New York: S. S. & W. Wood. 1860.

Compendium of Human Histology. By C. Morel. Translated and Edited by W. H. Van Buren, M.D. &c., New York: Baillière Bros. 1861.

A Practical Treatise on the Ætiology, Pathology, and Treatment of the Congenital Malformations of the Rectum and Anus. By William Bordenhamer, M.D., New York: S. S. & W. Wood. 1860.

A Hand-book of Hospital Practice. By Robert D. Lyons, New York: S. S. & W. Wood. 1861.

Theory and Practice of the Movement Cure by the Swedish System of Localized Movements. By Charles Fayette Taylor, M.D., Philadelphia: Lindsay & Blakiston. 1861.